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IN THE UNITED STATES PATENT  
AND TRADEMARK OFFICE

**Merged Proceedings**

**Reissue Application No.:**

09/512,592

**United States Patent No.:**

5,806,063

**Issued:** September 8, 1998

**Applicant:**

Dickens, Bruce M.

**Reexamination Proceeding:**

90/005,592

**Filed:** December 21, 1999

**Reexamination Proceeding:**

90/005,628

**Filed:** February 2, 2000

**Reexamination Proceeding:**

90/005,727

**Filed:** May 16, 2000

**Group Art Unit:** 2177

**Examiner:** Jean Homere

**Attorney Docket No.:**

1087-400-01

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Technology Center 2100

**Response to Office Action**

Box Non-Fee Amendments  
Honorable Commissioner of Patents and Trademarks  
Washington, D.C. 20231

Dear Sir:

Responsive to the Office Action dated June 20, 2002, the Applicant hereby responds as follows.

In the Specification:

Please substitute the Abstract contained in Appendix 1 to this Response, which includes the changes made to the original body of the Specification as filed by the Certificate of Correction, with the exception of the change in the section "References Cited" which is not part of the Specification. Appendix 2 to this Response includes a red-lined version of the Abstract as submitted showing the specific change made to the Specification as originally submitted by the Certificate of correction. Please add the accompanying "Exhibit A" which is contained in Appendix 3 to this Response. "Exhibit

Dickens-Soeder2000, Response to Second Office Action, Merged Proceeding 1087-400-01

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A" is a retyped version of the original "Exhibit A," a copy of which accompanies this Response as Appendix 4, which was filed with the original application leading to the Dickens patent under reexamination and subject of the Reissue application in this Merged Proceeding, and referenced in the Specification (Col. 3, line 58), but not published with the Dickens patent as issued. Also a part of Appendix 4 is the cover sheet for the application as originally filed in 1996 showing "Exhibit A" was in the Specification as filed.

In the claims:

Please substitute claim 10 (Amended) for the existing claim 10. Appendix 5 to this Response contains on a separate sheet the amended claim 10 and Appendix 6 contains a red-lined version of the claim showing the specific amendments made to the claim.

#### **Remarks**

This Merged Proceeding of the above captioned Reexamination Proceedings and Reissue Application relates to the above captioned patent, United States Patent No. 5,806,063, issued to Dickens on September 8, 1998 on an application filed on October 3, 1996, entitled DATE FORMATTING AND SORTING FOR DATES SPANNING THE TURN OF THE CENTURY ("the Dickens patent"). A first reexamination was Ordered by the USPTO itself (005,592). A second Reexamination was Ordered in response to a Petition of a first anonymous Requestor (005,628). A third reexamination was Ordered in response to a Petition of a second anonymous Requestor (005,727).

Claims 1-76 were in the above captioned cases. Claims 1-76 have been rejected. Claims 1-76 remain in this case. For the below stated reasons Applicant respectfully traverses the Examiner's rejections of claims 1-76 and asserts that claims 1-76 should be allowed and respectfully requests that the Examiner allow claims 1-76.

In response to the Examiner's formal rejections, applicant has submitted a substitute Abstract and incorporated therein the changes of the Certificate of Correction and also an Exhibit A that was submitted with the original application as filed on October 3, 1996. Applicant has submitted a new Oath and Declaration signed by the inventor.

Applicant has resubmitted a copy of the Declaration under 37 C.F.R. §3.73, along with a new declaration under 37 C.F.R. §3.73. The Examiner is respectfully requested to withdraw the objections to the application and the rejection for a defective Reissue Declaration.

Claim 10 has been amended to correct a discrepancy between the claim and the disclosure of the Dickens patent, as discussed further below.

#### Applicable Law

##### Determinations of Obviousness

In considering obviousness, the claimed invention must be considered as a whole; the references must be considered as a whole and must suggest the desirability and thus the obviousness of making the combination; the references must be viewed without the benefit of impermissible hindsight vision afforded by the claimed invention; and reasonable expectation of success is a part of the standard for determining if a combination of references is proper for a *prima-facie* case of obviousness. M.P.E.P. §§2141 and 2141.01, *citing, Hodosh v. Block Drug Co., Inc.*, 786 F.2d 1136, 1143 n.5, 229 U.S.P.Q. 182, 187 n.5 (Fed. Cir. 1986); *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 U.S.P.Q. 303, 313 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 851 (1984); and *Wang Laboratories, Inc. v. Toshiba Corp.*, 993 F.2d 858, 26 U.S.P.Q.2d 1767 (Fed. Cir. 1993) (claim directed to "single inline memory modules (SIMMs) for installation on a printed circuit motherboard for use in personal computers," involving compact modular memories using dynamic random-access-memories, was not obvious over prior art that showed a SIMM for a large industrial machine controllers, involving memory circuits in which modules of varying sizes may be added or replaced, and using static random access-memories or read-only-memories).

A prior art reference that describes a product or process similar to the claimed product or process and also a statement that the product or process does not work does not teach the claimed product or process. A prior art reference may be considered to teach away when "a person of ordinary skill, upon reading the reference, would be discouraged from following the path set out in the reference, or would be led in a

direction divergent from the path that was taken by the [inventor].” *In re Gurley*, 27 F.3d 551, 553, 31 U.S.P.Q.2d 1130, 1131 (Fed. Cir. 1994). Shaughnessy, Hazama, Ohms and Booth, while variously disclosing uses of windowing, all lead in directions divergent from the path chosen by the applicant to solve the Y2K problem in legacy databases containing date data stored in two year date characters instead of, e.g., being stored in four character date data, or Lillian, or integer.

Distilling an invention down to the “gist” or “thrust” of an invention disregards the requirement of analyzing the subject matter “as a whole.” M.P.E.P. §2141.02. See *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 U.S.P.Q. 303 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 851 (1984) (Restricting consideration of the claims to a 10% per second rate of stretching of unsintered PTFE and disregarding other limitations resulted in treating claims as though they read differently than they actually read); *Bausch & Lomb v. Barnes-Hind/Hydrocurve, Inc.*, 796 F.2d 443, 447-49, 230 U.S.P.Q. 416, 419-20 (Fed. Cir. 1986), *cert. denied*, 484 U.S. 823 (1987) (District court focused on the “concept of forming ridgeless depressions having smooth rounded edges using a laser beam to vaporize the material,” but “disregarded express limitations that the product be an ophthalmic lens formed of a transparent crosslinked polymer and that the laser marks be surrounded by a smooth surface of unsublimated polymer.”). See also *Jones v. Hardy*, 727 F.2d 1524, 1530, 220 U.S.P.Q. 1021, 1026 (Fed. Cir. 1984) (“Treating the advantage as the invention disregards statutory requirement that the invention be viewed ‘as a whole.’”); *Panduit Corp. v. Dennison Mfg. Co.*, 810 F.2d 1561, 1 U.S.P.Q.2d 1593 (Fed. Cir.), *cert. denied*, 481 U.S. 1052 (1987) (District court improperly distilled claims down to a one word solution to a problem). M.P.E.P. §2141.02. Viewing the claims of the present application as if the inventions were windowing in and of itself or windowing with a ten-decade window, or the like, and ignoring the contributions of the other claim limitations to the claimed process is, therefore, improper.

A prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention. *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 U.S.P.Q. 303 (Fed. Cir. 1983), *cert. denied*, 469

U.S. 851 (1984) (Claims were directed to a process of producing a porous article by expanding shaped, unsintered, highly crystalline poly(tetrafluoroethylene) (PTFE) by stretching said PTFE at a 10% per second rate to more than five times the original length. The prior art teachings with regard to unsintered PTFE indicated the material does not respond to conventional plastics processing, and the material should be stretched slowly.) A reference teaching rapid stretching of conventional plastic polypropylene with reduced crystallinity combined with a reference teaching stretching unsintered PTFE would not suggest rapid stretching of highly crystalline PTFE, in light of the disclosures in the art that teach away from the invention, i.e., that the conventional polypropylene should have reduced crystallinity before stretching, and that PTFE should be stretched slowly. M.P.E.P. §2141.02.

*Prima facie* obviousness allocates who has the burden of going forward with production of evidence in each step of the examination process.<sup>1</sup> The Examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness. If the Examiner does not produce a *prima facie* case, the applicant is under no obligation to submit evidence of nonobviousness. To establish a *prima facie* case of obviousness, three basic criteria must be met. There must be some suggestion or motivation, either in the references themselves or in knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. There must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. M.P.E.P. §2143.03, citing, *In re Royka*, 490 F.2d 981, 180 U.S.P.Q. 580 (C.C.P.A. 1974), and *In re Wilson*, 424 F.2d 1382, 1385, 165 U.S.P.Q. 494, 496 (C.C.P.A. 1970) ("All words in a claim must be considered in judging the patentability of that claim against the prior art."). See M.P.E.P. §2142. In the present case, neither Ohms, Hazama, Booth nor Shaughnessy, nor any combination thereof, discloses all of the elements of the claimed invention, and,

<sup>1</sup> M.P.E.P. §2142. See *In re Rinehart*, 531 F.2d 1048, 189 U.S.P.Q. 143 (C.C.P.A. 1976); *In re Linter*, 458 F.2d 1013, 173 U.S.P.Q. 560 (C.C.P.A. 1972); *In re Saunders*, 444 F.2d 599, 170 U.S.P.Q. 213 (C.C.P.A. 1971); *In re Tiffin*, 443 F.2d 394, 170 U.S.P.Q. 88 (C.C.P.A. 1971), amended, 448 F.2d 791, 171 U.S.P.Q. 294 (C.C.P.A. 1971); *In re Warner*, 379 F.2d 1011, 154 U.S.P.Q. 173 (C.C.P.A. 1967), cert. denied, 389 U.S. 1057 (1968).

therefore, there does not even exist support for a *prima facie* case for obviousness. This alone is a basis for finding the claimed invention patentable over these references.

The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991).<sup>2</sup>

The initial burden is on the Examiner to provide some suggestion of the desirability of doing what the inventor has done. "To support the conclusion that the claimed invention is directed to obvious subject matter, either the references must expressly or impliedly suggest the claimed invention or the examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references." M.P.E.P. §2142. *Ex parte Clapp*, 227 U.S.P.Q. 972, 973 (Bd. Pat. App. & Inter. 1985). See M.P.E.P. §2144 - § 2144.09.

The strongest rationale for combining references is a recognition, expressly or impliedly in the prior art or drawn from a convincing line of reasoning based on established scientific principles or legal precedent, that some advantage or expected beneficial result would have been produced by their combination. M.P.E.P. §2143.03, *citing*, *In re Sernaker*, 702 F.2d 989, 994-95, 217 U.S.P.Q. 1, 5-6 (Fed. Cir. 1983).

Applicant submits that the combination of the teachings of references such as Ohms or Booth, which do not store data in a database in a manner that is subject to Y2K year date

<sup>2</sup> See also, *In re Rouffet*, 149 F.3d 1350, 1357, 47 U.S.P.Q.2d 1453, 1457-58 (Fed. Cir. 1998) (The combination of the references taught every element of the claimed invention, however without a motivation to combine, a rejection based on a *prima facie* case of obvious was held improper.); *Al-Site Corp. v. VSI Int'l Inc.*, 174 F.3d 1308, 50 U.S.P.Q.2d 1161 (Fed. Cir. 1999) (The level of skill in the art cannot be relied upon to provide the suggestion to combine references.); *In re Kotzab*, 217 F.3d 1365, 1371, 55 U.S.P.Q.2d 1313, 1318 (Fed. Cir. 2000) (the improvement over the art, using a single temperature to control multiple injection molding valves as opposed to a single system using multiple sensors, one for each valve was not shown by the Examiner to be obvious, even if the modification was a "technologically simple concept," without a showing in the record of a "specific understanding or principle within the knowledge of the skilled artisan" that would have provided the motivation to use a single sensor as the system to control more than one valve.); *In re Fine*, (A system for detecting and measuring minute nitrogen compounds comprising a gas chromatograph, a converter which converts nitrogen compounds into nitric oxide by combustion, and a nitric oxide detector was not shown to be obvious over a reference disclosing a system for monitoring sulfur compounds comprising a chromatograph, combustion means, and a detector, and a reference teaching nitric oxide detectors, since the Examiner and Board did not support or explain the assertion that the combination was within the skill of the art.) as cited in M.P.E.P. §2143 and 2143.01.

ambiguity, would not be expected to add some advantage or beneficial result to the apparatus/process disclosed in either Shaughnessy or Hazama. Other than disclosing in general a use of windowing, which both Shaughnessy and Hazama already disclose, Ohms and Booth would not be looked upon to add any additional advantage to Shaughnessy or Hazama or the combination of Shaughnessy and Hazama.

When the motivation to combine the teachings of the references is *not immediately apparent*, it is the duty of the examiner to explain why the combination of the teachings is proper. *Ex parte Skinner*, 2 U.S.P.Q.2d 1788 (Bd. Pat. App. & Inter. 1986). The tendency to resort to “hindsight” based upon applicant's disclosure is often difficult to avoid due to the very nature of the examination process. However, impermissible hindsight must be avoided and the legal conclusion must be reached on the basis of the facts gleaned from the prior art. M.P.E.P. §2142.

The mere fact that references *can be combined or modified* does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. M.P.E.P. §2143.01, *citing, In re Mills*, 916 F.2d 680, 682, 16 USPQ2d 1430, 1432 (Fed. Cir. 1990) (there was no suggestion in the reference to modify it as the Examiner asserted it could have been modified.), and *In re Fritch*, 972 F.2d 1260, 23 U.S.P.Q.2d 1780 (Fed. Cir. 1992) (flexible landscape edging device which is conformable to a ground surface of varying slope was not suggested by the combination of prior art references).

A statement that modifications of the prior art to meet the claimed invention would have been “well within the ordinary skill of the art at the time the claimed invention was made” because the references relied upon teach that all aspects of the claimed invention were individually known in the art is not sufficient to establish a *prima facie* case of obviousness without some objective reason to combine the teachings of the references. M.P.E.P. §2143.01, *citing, Ex parte Levengood*, 28 U.S.P.Q.2d 1300 (Bd. Pat. App. & Inter. 1993), and *In re Kotzab, supra*, and *Al-Site Corp., supra*.

Obviousness cannot be established by combining references “without also providing evidence of the motivating force which would impel one skilled in the art to do

what the patent applicant has done.” M.P.E.P. §2143.03, *citing, Ex parte Levensgood*, 28 U.S.P.Q.2d 1300, 1302 (Bd. Pat. App. & Inter. 1993).

As the Federal Circuit has recently held in regard to the requirement for establishing the motivation to combine, this motivation must be established by evidence found in the references themselves. See *In re Lee*, 277 F.3d 1338, 61 U.S.P.Q.2d 1430 (Fed. Cir. 2002) (“*Lee*”). The Examiner must do more than conclusively state the obviousness to combine references to obtain some perceived benefit. This is especially so, if the benefit of the combination is only taught by the applicant’s specification, but is also true even if this factor is not present.

In *Lee* the claimed invention related to “a method of automatically displaying the functions of a video display device and demonstrating how to select and adjust the functions in order to facilitate response by the user.” *Lee* at 1340. One reference showed “a television set having a menu display by which the user can adjust various picture and audio functions ... [but] not ... a demonstration of how to adjust the functions.” *Lee*, at 1341. Another reference, a video game manual, described a video display “having a ‘demonstration mode’ showing how to play the game [making no] mention of the adjustment of picture or audio functions.” *Lee* at 1341.

The Board held “it was not necessary to present a source of a teaching, suggestion, or motivation to combine these references or their teachings,” and that a “conclusion of obviousness may be made from common knowledge and common sense of a person of ordinary skill in the art without any specific hint or suggestion in a particular reference.” *Lee* at 1341.

The Federal Circuit disagreed, noting, that the Examiner had “merely stated that both the [display reference] function menu and the [video game manual] demonstration mode are program features and that the [video game manual] mode ‘is user-friendly’ and it functions as a tutorial, and that it would have been obvious to combine them.” *Lee* at 1333-34. The Federal Circuit reversed the Board, characterizing the Examiner’s basis for

finding motivation to combine, upheld by the Board, to be “conclusory statements.”<sup>3</sup> *Lee* at 1343-34.

The Federal Circuit held that the Examiner’s reasons for finding motivation to combine references must be “‘thorough and searching.’ ... It must be based on *evidence of record*. ... [T]he best defense against the subtle but powerful attraction of a hindsight-based obviousness analysis is a rigorous application of the requirement for a showing of the teaching or motivation to combine prior art references. ... [T]eachings of references can be combined *only* [emphasis in original] if there is some suggestion or incentive to do so.” *Lee* at 1343 (Citations omitted and except as noted, emphasis added).

Hindsight must be avoided in combining references in the prior art. It is error to reconstruct the claimed invention from the prior art using the claimed invention as a blueprint. *Panduit Corp. v. Dennison Manufacturing Co.*, 774 F.2d 1082, 227 U.S.P.Q. 337, 343 (Fed. Cir. 1985), *In re Find*, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988), and *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 U.S.P.Q. 303 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 851 (1984).

It is improper to reject a claim based upon the mere assertion that one of ordinary skill in the art would know to add a claimed feature to the claimed invention without the citation of a reference that teaches the claimed feature (MPEP §706.02 (a)), or at least an affidavit from the Examiner detailing the Examiner’s knowledge of the prior art under 37 C.F.R. §1.107 (b). *In re Newell*, 13 U.S.P.Q.2d 1248 (Fed. Cir. 1989), and *In re Kaplan*, 229 U.S.P.Q. 678, 683 (Fed. Cir. 1986). The Examiner’s determination may not be based upon knowledge gleaned only from applicant’s disclosure. M.P.E.P. §2144.03, *citing, In re McLaughlin* 443 F.2d 1392, 1395, 170 U.S.P.Q. 209, 212 (C.C.P.A. 1971).

In addition, the *prima facie* case of obviousness cannot be made by simply asserting that missing elements from a combination of references would have been obvious, even if a motivation to supply the missing elements is asserted by the Examiner.

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<sup>3</sup> More specifically the Examiner had stated:

‘it would have been obvious to one of ordinary skill in the art since the demonstration mode is just a programmable feature which can be used in many different device[s] for providing automatic introduction by adding the proper programming software,’ and that ‘another motivation would be that the automatic demonstration mode is user friendly and it functions as a tutorial.’

In *In re Thrift*, 298 F.3d 1357, \_\_ U.S.P.Q. \_\_ (Fed. Cir. 2002) ("*Thrift*") the Federal Circuit rejected an inadequate showing of a teaching or suggestion to combine the references or to supply missing elements beyond the mere Examiner's statement of conjecture based upon the desire to make some asserted generally recognized desirable improvement over the existing art. The Federal Circuit found that the Examiner's combination of references was proper as to some claims where there was a clear statement of the desirability of making the combination of the references in *each of the references*. *Thrift*, 298 F.3d at 1364-65. The Federal Circuit also found wanting an Examiner's rationale that combination would have been indicated because a feature missing in the reference was "old and well known in the art of speech recognition as a means of optimization which is highly desirable." *Thrift*, 298 F.3d at 1365-66.

In *Thrift*, the claimed invention related to a voice activated browser having a "speech interface (*i.e.*, the speech user agent) ... ." *Thrift*, 298 F.3d at 1360. In addition there was the capability to "create a 'grammar' ... an established set of standard query words. ... creating a 'Speakable Hotlist' ... allow[ing] the user to access a number of different URLs by just saying a phrase [like 'How's the weather?']." *Thrift*, 298 F.3d at 1360 (Bracket added).

The prior art combination of references did not "disclose[] the grammar-creation capability added in claims 11 and 14 ... ." *Thrift*, 298 F.3d at 1361. Nevertheless, the Examiner rejected the claims on the grounds that "[t]he use of grammar is old and well known in the art of speech recognition as a means of optimization which is highly desirable." *Thrift*, 298 F.3d at 1362. The Board affirmed the Examiner noting that the Examiner had set forth "sufficient reasoning for asserting the obviousness or inherent nature of each of the claimed features, and therefore, 'the Examiner's reasoning is sufficient to shift the burden to Appellants to come forward with evidence and/or arguments to rebut the Examiner's position.'" *Thrift*, 298 F.3d at 1365.

The applicant argued before the Federal Circuit that there was no evidence in the record of the obviousness stated by the Examiner, that the combination of references did not result in all of the elements of the claimed invention and that there was no showing

by the Examiner of a motivation to combine the references, even if the “all elements” aspect of a *prima facie* case of obviousness existed. *Thrift*, 298 F.3d at 1365-66.

The Federal Circuit held:

the Board's ground of rejection is simply inadequate on its face. The Board sustained the examiner's *very general and broad conclusion of obviousness* based on his finding that ‘[t]he use of grammar is old and well known in the art of speech recognition as a means of optimization which is highly desirable.’ ... Although this statement is likely true, it fails to address the grammar-creation capability limitations of claim 11. While the *examiner's statement generally addresses the use of grammar, it does not discuss the unique limitations of extracting, modifying, or processing the grammar to interact with hypermedia sources*. The Board's decision is not supported by substantial evidence because the *cited references do not support each limitation of claim 11*. See *In re Vaeck*, 947 F.3d 488, 493, 20 U.S.P.Q.2d 1438, 1443 (Fed. Cir. 1991). *Thrift*, 298 F.3d at 1366.

If a proposed modification would render the prior art being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. M.P.E.P. §2143.01, *citing, In re Gordon*, 733 F.2d 900, 221 U.S.P.Q. 1125 (Fed. Cir. 1984) (A blood filter assembly for medical procedures having an inlet and outlet located at the bottom and a gas vent was at the top was not obvious over a prior art reference showing a strainer for removing dirt and water from gasoline with an inlet and outlet were at the top of the device, and a pet-cock (stopcock) at the bottom and separation assisted by gravity, since turning the reference upside down as the Examiner suggested would render the prior art inoperable.)

If the proposed modification or combination of the prior art would change the principle of operation of the prior art being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. *In re Ratti*, 270 F.2d 810, 813, 123 U.S.P.Q. 349, 352 (CCPA 1959) (An oil seal with a bore engaging portion with outwardly biased resilient spring fingers inserted in a resilient sealing member was not

obvious over a reference showing an oil seal having a bore engaging portion was reinforced by a cylindrical sheet metal with a reference showing a more flexible seal, since the “suggested combination of references would require a substantial reconstruction and redesign of the elements shown in [the primary reference] as well as a change in the basic principle under which the [primary reference] construction was designed to operate.”)

If an independent claim is nonobvious under 35 U.S.C. §103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988).

The Examiner may take official notice of facts outside of the record which are capable of *instant and unquestionable demonstration as being “well-known”* in the art. M.P.E.P. §2144.03 (Emphasis added), *citing, In re Ahlert*, 424 F.2d 1088, 1091, 165 U.S.P.Q. 418, 420 (C.C.P.A. 1970). In order to justify the Examiner not producing a reference, the asserted knowledge of one skilled in the art must be “*of such notorious character* that official notice can be taken.” M.P.E.P. §2144.03, *citing, In re Malcolm*, 129 F.2d 529, 54 U.S.P.Q. 235 (C.C.P.A. 1942). If the applicant traverses such an assertion *the examiner should cite a reference* in support of his or her position. M.P.E.P. §2144.03.<sup>4</sup>

“[A]ssertions of technical facts in areas of esoteric technology must *always* be supported by citation of some reference work.” M.P.E.P. §2144.03, *citing, In re Ahlert*, 424 F.2d 1088, 1091, 165 U.S.P.Q. 418, 420-421 (C.C.P.A. 1970). “The facts so noticed serve to ‘fill the gaps’ which might exist in the evidentiary showing” and should not comprise the *principle evidence* upon which a rejection is based. M.P.E.P. §2144.03, *citing, In re Ahlert*, 424 F.2d 1088, 1091, 165 U.S.P.Q. 418, 420-421 (C.C.P.A. 1970), and *In re Eynde*, 480 F.2d 1364, 1370, 178 U.S.P.Q. 470, 474 (C.C.P.A. 1973) (“The

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<sup>4</sup> If the Examiner is supporting the common knowledge in the art, or other such characterizations of the motivation to combine the references, based upon “facts within the personal knowledge” of the Examiner’s then “the *data should be stated as specifically as possible*, and the facts *must be supported*, when called for by the applicant, by an affidavit from the examiner.” M.P.E.P. §2144.03. To the extent that the Examiners combination of references is based upon such support, applicant hereby requests an affidavit from the Examiner.

facts constituting the state of the art are normally subject to the possibility of rational disagreement among reasonable men and are not amenable to the taking of [judicial] notice.”).

A prior art reference is analogous if the reference is in the field of applicant’s endeavor or, if not, the reference is reasonably pertinent to the particular problem with which the inventor was concerned. *In re Oetiker*, 977 F.2d 1443, 1446, 24 U.S.P.Q.2d 1443, 1445 (Fed. Cir. 1992). M.P.E.P. §2144.03. See M.P.E.P. § 2141.01(a).

It is improper to combine references where the references teach away from their combination. M.P.E.P. §2143.01, *citing*, *In re Grasselli*, 713 F.2d 731, 743, 218 U.S.P.Q. 769, 779 (Fed. Cir. 1983) (The claimed catalyst which contained both iron and an alkali metal was not suggested by the combination of a reference which taught the interchangeability of antimony and alkali metal with the same beneficial result, combined with a reference expressly excluding antimony from, and adding iron to, a catalyst.).

Simply because the claimed invention employs a known technique, i.e., windowing, does not, of itself, make the process of the claimed invention unpatentable. *In re Brower*, 77 F.3d 422, 37 U.S.P.Q.2d 1663 (Fed. Cir. 1994).

#### Enablement

A claim is supported by the disclosure in an application where the disclosure, when filed, contains “sufficient information regarding the subject matter of the claims as to enable one skilled in the pertinent art to make and use the claimed invention.” See M.P.E.P. §2164.01. The standard to meet is whether or not unreasonable experimentation would be required to enable one of ordinary skill in the art to make and use the claimed invention. M.P.E.P. §2164.01, *citing*, *Mineral Separation v. Hyde*, 242 U.S. 261, 270 (1916); *In re Wands*, 858 F.2d 731, 737, 8 U.S.P.Q.2d 1400, 1404 (Fed. Cir. 1988).

#### Adequate Description

The first paragraph of 35 U.S.C. 112 requires that the “specification shall contain a written description of the invention ... .” M.P.E.P. §2163. This requirement is separate

and distinct from the enablement requirement. M.P.E.P. §2163, *citing, Vas-Cath, Inc. v. Mahurkar*, 935 F.2d 1555, 1560, 19 U.S.P.Q.2d 1111, 1114 (Fed. Cir. 1991). The written description requirement has several policy objectives, including “to clearly convey the information that an applicant has invented the subject matter which is claimed,” and to “put the public in possession of what the applicant claims as the invention.” M.P.E.P. §2163, *citing, In re Barker*, 559 F.2d 588, 592 n.4, 194 U.S.P.Q. 470, 473 n.4 (C.C.P.A. 1977), and *Regents of the University of California v. Eli Lilly*, 119 F.3d 1559, 1566, 43 U.S.P.Q.2d 1398, 1404 (Fed. Cir. 1997), *cert. denied*, 523 U.S. 1089 (1998). In this regard the requirement is not very distinct as to the required disclosure from the enablement requirement. The patent law requires that “patentees adequately describe their inventions in their patent specifications in exchange for the right to exclude others from practicing the invention for the duration of the patent’s term.” M.P.E.P. §2163.

Much of the written description case law addresses whether the Specification as originally filed supports claims not originally in the application. M.P.E.P. §2163. The issue raised in the cases is most often phrased as whether the original application provides “adequate support” for the claims at issue or whether the material added to the specification incorporates “new matter” in violation of 35 U.S.C. §132. M.P.E.P. §2163, *citing, In re Koller*, 613 F.2d 819, 204 USPQ 702 (C.C.P.A. 1980) (original claims constitute their own description); *accord In re Gardner*, 475 F.2d 1389, 177 U.S.P.Q. 396 (CCPA 1973); *accord In re Wertheim*, 541 F.2d 257, 191 U.S.P.Q. 90 (C.C.P.A. 1976). It is now well accepted that a satisfactory description may be in the claims or any other portion of the originally filed specification. M.P.E.P. §2163.

An applicant shows possession of the claimed invention by describing the claimed invention with all of its limitations using such descriptive means as words, structures, figures, diagrams, and formulas that fully set forth the claimed invention. M.P.E.P. §2163, *citing, Lockwood v. American Airlines, Inc.*, 107 F.3d 1565, 1572, 41 U.S.P.Q.2d 1961, 1966 (Fed. Cir. 1997).

Most typically, the issue will arise in the context of determining whether new or amended claims are supported by the description of the invention in the application as

filed. M.P.E.P. §2163, *citing*, *In re Wright*, 866 F.2d 422, 9 U.S.P.Q.2d 1649 (Fed. Cir. 1989). The claims need not use the exact terminology as appears in the descriptive portion of the Specification. M.P.E.P. §2163, *citing*, M.P.E.P. §608.01 (o). It is only required that the nomenclature “have clear support or antecedent basis in the specification ... necessary in order to insure certainty in construing the claims in the light of the specification.” M.P.E.P. §2163, *citing*, M.P.E.P. §608.01 (o), and *Ex parte Kotler*, 1901 C.D. 62, 95 O.G. 2684 (Comm’r Pat. 1901). See 37 C.F.R. §1.75. See M.P.E.P. §§608.01(i) and 1302.01. Thus there is no *in haec verba* requirement, and newly added claim limitations need only be supported in the specification through express, implicit, or inherent disclosure. M.P.E.P. §2163.

New or amended claims which introduce elements or limitations which are not supported by the as-filed disclosure violate the written description requirement. M.P.E.P. §2163. Noted examples of this are, e.g., *In re Lukach*, 442 F.2d 967, 169 U.S.P.Q. 795 (CCPA 1971) (subgenus range was not supported by generic disclosure and specific example within the subgenus range); *In re Smith*, 458 F.2d 1389, 1395, 173 U.S.P.Q. 679, 683 (C.C.P.A. 1972) (a subgenus is not necessarily described by a genus encompassing it and a species upon which it reads).

The fundamental factual inquiry is whether the specification conveys with *reasonable clarity to those skilled in the art* that, as of the filing date sought, applicant was in possession of the invention as now claimed. M.P.E.P. §2163, *citing*, *Vas-Cath, Inc.*, 935 F.2d at 1563-64, 19 U.S.P.Q.2d at 1117.

There is a strong presumption that an adequate written description of the invention claimed in the claims as originally filed is present when the application is filed. M.P.E.P. §2163, *citing*, *In re Wertheim*, 541 F.2d 257, 263, 191 U.S.P.Q. 90, 97 (C.C.P.A. 1976).

#### Claims Subject to Reexamination

Under M.P.E.P. §2258 rejection of claims subject to reexamination is proper only if the claim is amended during reexamination, and the references were not cited in the same combination or with respect to the same statutory basis as during the original

examination ... .” See *In re Portola Packaging, Inc.*, 110 F.3d 786, 789, 42 U.S.P.Q.2d 1295 (Fed. Cir. 1997). This same principal should be applied to rejections under 35 U.S.C. §112 where no new question of patentability exists. See 35 U.S.C. §303. “Reexamination is barred for questions of patentability that were decided in the original examination.” See *In re Portola Packaging, Inc.*, 110 F.3d 786, 788, 42 U.S.P.Q.2d 1295 (Fed. Cir. 1997), citing, *In re Recreative Technologies, Inc.*, 83 F.3d 1395, 1398, 38 U.S.P.Q.2d 1776, 1779 (Fed.).

#### The Disclosure of the Dickens Patent

Applicant asserts regarding the description contained in the Specification as filed, that it is clear, concise and descriptive of the claimed invention and enabling of the claimed invention, especially of the claims as filed, but also including those claims added in the Reissue Application. This includes the Specification as filed with or without the Exhibit A filed with the application but not printed with the patent as issued, but it is even more clearly present with the disclosure of Exhibit A.

The Dickens patent notes, initially, that “[d]ates are stored as symbolic representations in computer data bases in varying formats.” (Col. 1, lines 10-11) Examples of such formats are given as a “numerical representation MM/DD/YY, where MM is a two-digit month designator, DD is a two-digit day designator, and YY is a two-digit year designator (the last two digits of the year). ... A date may also be represented in an alphanumeric for MMM/DD/YY, where MMM is an alphanumeric month designator (e.g., DEC for December ... .” (Col. 1, lines 11-20) Also notes the Dickens patent “[s]ets of dates spanning the turn of the century and associated with past, current, and future activities are now stored in many databases. When stored in the conventional formats discussed above, those dates will not readily be used and numerically sorted in chronological order.” (Col. 1, lines 31-35)

Further, the Dickens patent notes that “Using the numerical form above, Dec. 15, 2000 is represented as 12/15/00. If a numerical sort is performed on 12/15/93 and

12/15/00, the later date 12/15/00 sorts as the first-occurring date, an incorrect result.” (Col. 1, lines 28-30) It is plain, therefore, that dates stored in a database in pure numerical form, e.g., Lilian, as in Olms, or in other form, e.g., binary form, e.g., integer form as in Booth, with a unique number representing each day (or each minute or second or part thereof, depending on the granularity) in a chronological sequence of days (minutes, seconds, etc.) from a particular starting date, as in Ohms or Booth, is not even analogous art to the present invention. In those databases, the number stored includes by definition the year in four digits, and is not susceptible to the problems solved by the present invention, among others, being that a sort on dates stored as discussed above in the cited portions of the Dickens patent will be subject to, e.g., the system being “unable to distinguish between the year 2000 and the year 1900, for example, the latter is also represented by the two digit code 00.” (See Shaughnessy, Col. 1, lines 23-25).

Therefore, both Olms and Booth add nothing to the disclosures of Shaughnessy and/or Hazawa. Olms and Booth teach a utilization of windowing, but not in the context of any suggested solution to the problem that is solved by the invention in the Dickens patent. In fact they teach away, since they teach the storage of the dates in a form that is not the “symbolic representation[]” dealt with in the Dickens patent and is not subject to the system being “unable to distinguish” dates stored in that fashion. Shaughnessy and Hazawa already teach a utilization of windowing and the teachings of either or both of Olms and Booth, beyond using windowing for something, are irrelevant to the invention of the Dickens patent.

The Dickens patent also notes “[t]hey [the symbolic representations of dates suffering from the problem of the system being unable to distinguish dates ‘spanning the turn of the century’] may be manually converted to a more useable form in the sense that programs may be written to perform conversions, manipulations, and sorting. However, these programs typically require additional data fields for storage, which may be objectionable in some circumstances.” (Col. 1, lines 35-40) The Dickens patent also notes “[t]he database includes information in the form of symbolic representations of

dates and associated information such as events occurring on the respective dates.” (Col. 2, lines 48-50)

One of ordinary skill in the art would readily understand these statements to reflect the issue that caused the Y2K problem in the first place. Databases (referred to herein generally as “legacy databases”) created initially during a period of time when memory was relatively very much more expensive than it is today or even has been for the last decade or so, were designed to have as small a data field for each needed item of information stored in the database as possible. For the year portions of dates stored, e.g., in a single date data field (e.g., MMDDYY) or a set of data fields (e.g., a separate MM, DD, and YY data field), as is the case in the databases relevant to the Dickens patent, this meant two character year date information with no century designation. This is at least part of the reason, as would have been well understood by one skilled in the art, that other representations, e.g., that are not symbolic, as that term is defined in the Dickens patent, were created, e.g., Lilian as in Ohms and integer as in Booth. Ohms and Booth represent ways to *initially store a complete date having day month and year to four digits*, and maybe even with less bytes than would be required for a symbolic representation in the form, e.g., DD/MM/YY, not to mention DD/MM/YYYY.

Therefore, existing legacy databases, which have Lilian or integer date data formats are not subject to a Y2K ambiguity problem. Legacy databases in which the dates are stored in a date data format including a data field or set of data fields, including only the storage of two year date designation characters, do have, as the Dickens Shaughnessy and Hazama patents recognize, the Y2K ambiguity problem.

While an existing legacy data base having the Y2K ambiguity problem may be modified to place the date data in the database in another format, e.g., containing YYYY instead of just YY, or into Lilian or integer format, or by adding to the legacy database another field, e.g., a CC, century designator field, as noted by both the Dickens patent and Shaughnessy, this can be complex, costly and maybe not effective.

Replacing the one date data field or set of date data fields in a legacy database of the type described by the Dickens patent to suffer the Y2K date ambiguity problem, as

would have been understood by those skilled in the art at the time of the filing of the application leading to the Dickens patent, may be simply unworkable or at best costly, time consuming and subject to numerous errors that may be even more costly and expensive to be fixed, if they even can be, after such a conversion. In short the best solution available in the prior art, as suggested by both Shaughnessy and the Dickens patent, may have been, as many people did, abandon the legacy database in favor of a totally new one in which the years date data is stored unambiguously, e.g., as YYYY. If such abandonment was not feasible, then there existed also the possibility of creating an entirely new database and transferring all of the data entries in all of the fields into the newly created database, if possible without massive clerical error. Neither solution was really economically viable as suggested in both Shaughnessy and the Dickens patent. Shaughnessy proposed a solution to this problem but his is significantly different from that of the claimed invention in the Dickens patent, and also not nearly as effective.

One of ordinary skill in the art at the time of the filing of the application that led to the Dickens patent would have understood the many problems in modifying a legacy database containing only room for date data in the format YY to a modified format, e.g., containing a YYYY date data format, some of which, by way of example only, might include:

(1) a database designed to be organized and contained in memory in a certain way, e.g., to conserve space or improve accessibility or both may physically (electronically) not be susceptible to expanding the YY date characterization into, e.g., YYYY; or

(2) pointers and other links, e.g., between data fields included in a string of date data information, i.e., DD, MM, YY, or other such links, e.g., between such a string entered in the database and another string that the database used, e.g., in comparing, or, e.g., for date sorting purposes, or, e.g., the initial data entry system of the database, or many other reasons that would have been understood by those skilled in the art at the time of the filing of the application leading to the Dickens patent, may be set up to look

for only a specified memory location or locations which may not be sufficient to contain the new year date data in, e.g., the expanded format.

This is the problem addressed in the Dickens patent and the rest of the disclosure, as would be done by one of ordinary skill in the art, must be construed with that fact in mind. As stated in the Dickens patent:

The present invention provides an approach to the representation and utilization of dates stored symbolically [as defined above] in databases. Existing symbolic date representations [as defined above] are converted to a more useful form of symbolic date representations *without the addition of new data fields*, and in a manner that is performed automatically by the computer and requires no user input. (Col. 1, lines 49-55, Emphasis added)

The Dickens patent goes on to explain:

a method of processing dates stored in a database [symbolically as described above] comprises the steps of providing a database with the dates stored therein according to a [symbolic] format [as discussed above, in which]  $Y_1Y_2$  is the numerical year designator ... . A century designator  $C_1C_2$  is *determined for each date in the database*,  $C_1C_2$  ... . *Each date in the database is formatted with the values  $C_1C_2 Y_1Y_2$  ...* . (Col. 1, line 57 – Col. 2, line 3, Emphasis added)

One of ordinary skill in the art would necessarily have understood from the disclosure of the Dickens patent as filed, with or without Exhibit A, that this is to be done *without* requiring additional or modified date data fields in the existing legacy database. The disclosure specifically says that avoiding having to do such a modification of the existing legacy database is the very reason for the claimed invention. This is also true in light of the claimed purpose being to “facilitat[e] further processing of the dates,” and because of the disclosure noted below that “[o]nce the symbolic representations of the dates are reformatted ... the date information may be sorted ... .”

The Dickens patent also notes:

The computer database 26 is provided, numeral 30, having symbolic representations of dates stored therein.

...

A ten decade window is selected, numeral 32. That is, it is necessary that all dates in the database will be within some period of 10 decades, or 100 years.

...

The symbolic representations of the dates in the database are reformatted with the values  $C_1C_2 Y_1Y_2 \dots$ . In one case that produces particularly advantageous results for many operations, such a chronological date sorting, the date is represented in the form  $C_1C_2 Y_1Y_2 \dots$ .

Once the symbolic representations of the dates are reformatted according to the procedures set forth above, the date information may be sorted, numeral 38 or otherwise manipulated, numeral 40, together with the entries associated with the dates. Such manipulation may include handling of data associated with the dates, storing the dates back in the data base, or other processes. (Col. 2, line 60 – Col. 3, line 55)

It is plain from these passages, and would have been understood by one of ordinary skill in the art, based upon the context of the disclosure as a whole of the Dickens patent, with or without Exhibit A, at the time of filing, that what is disclosed here is the conversion, wholesale, of the dates in the database and running some program on the large number of dates so converted and that this is done without changing the underlying data fields in the legacy database from which the date data information was originally obtained and to which it may be returned. Similarly, it is plain, and would have been understood by one of ordinary skill in the art, that to perform the method of the Dickens patent, the converted dates must be stored somewhere outside of the existing database date data fields, otherwise sorting and other manipulations by applications programs could not be done on all of the dates taken from the database and reformatted according to the claimed invention.

Shaughnessy discloses receiving from the processor into the subroutine of the one or two dates taken from the legacy database date data field(s) that Shaughnessy's subroutine operate upon, without specifically disclosing where outside the original date

data field in the legacy data base this storage would occur. Similarly, those skilled in the art would have understood that all of the converted dates from the legacy database, according to the present invention, [“each symbolic representation of a date in the database,” and “reformatting the symbolic representation of the date [for each such date],” as disclosed and claimed in the Dickens patent, would require some memory and it would not be the date data fields of the legacy database. Only in this manner, as would also have been understood by those of ordinary skill in the art from the disclosure in the Dickens patent, with or without Exhibit A, could a program be run on the dates so reformatted to accomplish the subsequent steps of, e.g., “sorting” and “manipulating.”

The Dickens patent further notes that:

the present invention thus provides an efficient approach to converting and utilizing symbolic date representations in databases [without requiring additional or modified data fields for storage in the existing database] which allows automatic processing of dates ranging from before to after the year 2000. The large number of dates represented in some databases may thereby be readily processed and utilized. (Col. 2, lines 22-27)

#### The Prosecution of the Original Application

Claims 1 and 11 as originally filed recited:

“reformatting the symbolic representation of the date in the database with the values  $C_1C_2$ ,  $Y_1Y_2$ ,  $M_1M_2$ ,  $D_1D_2$ ,” and “reformatting each date in the database with the values  $C_1C_2$ ,  $Y_1Y_2$ ,  $M_1M_2$ ,  $D_1D_2$ ” respectively.

The Examiner rejected these claims on the basis of lack of enablement, since: [t]he ‘conversion of existing symbolic date representations ... without the addition of new data fields’, as indicated at page 2 lines 7-10, is critical or essential to the practice of the invention, but not included in the claim(s) is not enabled by the disclosure. ... The problem set forth in the last four lines of page 1 and promised in the first paragraph of page 2, as well as in the lines quoted above, indicate that the invention solves the Y2K problem without introducing additional digits. The claims, the abstract and the description of the invention in the SUMMARY

clearly involve century digits  $C_1C_2$ , which increase the number of date digits from 6 to 8, thus using 4 digits to indicate the year. *One of ordinary skill in the art would not know how to resolve this discrepancy.* (Office Action of November 17, 1996, at page 2, Emphasis added)

The applicant responded in an Amendment of March 17, 1997. The applicant's counsel noted:

As stated in the application, many existing databases contain date representations that are defined only by the decade and year designations (i.e.,  $Y_1Y_2$ ). Because these databases do not provide date designations for the century associated with each date, it will be impossible to discern the order of dates in a database after the turn of the century.

To properly and efficiently address this problem, a method for converting dates in databases was needed. This method should accept dates from data storage, discern the proper century designation for each date, and reformat the dates with the century designation.

The claimed invention provides a method of processing symbolic representations of dates stored in a database. ... Finally, the method of the claimed invention includes the step of reformatting the symbolic representations of the dates into corresponding values of  $C_1C_2$ ,  $Y_1Y_2$ ,  $M_1M_2$ ,  $D_1D_2$ . These values can then be used to manipulate the dates, such as by sorting the dates in chronological order.

In a typical operation of the claimed invention, the method performs date conversions on a database that includes dates from both the twentieth and twenty-first century. ...

... The method of the present invention further includes the step of reformatting the symbolic representations of the dates into values  $C_1C_2$ ,  $Y_1Y_2$ ,  $M_1M_2$ ,  $D_1D_2$ . ... *These dates can then be used for several operations such as date sorting.*

Advantageously, the method of the claimed invention can be implemented as an initial step in any database manipulation program. For instance, the method of the claimed invention may be embodied in computer software code that *preprocesses a database prior to beginning the remainder of the data manipulation program*. In this embodiment, the method initially converts the data from the varying formats, *determines the century designation for each date, and reformats the dates such that the dates may be used by the database manipulation program for such operations as sorting and printing*<sup>5</sup> the dates. In this embodiment of the present invention, *the dates are temporarily converted and reformatted for use by the manipulation program*. However the method of the present invention need not store the converted date in data storage. Instead, the *original dates in the data storage remain undisturbed*. This aspect of the present invention thus allows conversion of dates to compensate for century designations *without requiring the addition of data fields to permanently store the century designations*. (Emphasis added)

In addressing the specific rejection of the original Examiner applicant's counsel also notes:

[T]he Office Action objects to the disclosure for implying that the current invention does not require additional data fields for storage to solve the year 2000 problem [and] rejected all of the claims ... as based on a disclosure that is not enabling. In particular the Office Action states that the conversion of the existing symbolic date representations without the addition of new data fields is critical or essential to the invention but not included in the claims.

As described below, the method of the claimed invention does not require that the converted data that includes the century designations be stored in data storage. Likewise ... the amended set of claims does not require storage of the converted data and therefore imposes no requirement for new data fields. ...

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<sup>5</sup> It is not apparent from this discussion of the disclosure of the Dickens patent whether applicant's counsel was relying also on the content of Exhibit A, but only Exhibit A in the disclosure as originally filed refers

As stated in the background of the invention, conventional date formatting systems typically require additional data fields for storage to accommodate the century designations. These additional data fields are necessary because conventional systems disclose a permanent reformatting of stored data. The claimed invention, on the other hand, does not require that the reformatted data be permanently stored. Instead, the method of [the] claimed invention encompasses embodiments in which the date information is initially reformatted and converted to have century designations, but does not require that the reformatted dates be stored. As stated previously, the method of one embodiment of the claimed invention reads the dates from the database and temporarily reformats the dates with century designations. Data manipulation programs are then performed on these reformatted dates, such as sorting the dates. However, once the data manipulations are complete, the reformatted dates need not be stored in data storage.

It is clear that when applicant's counsel said that the claimed method of the patent application "should accept dates from data storage ..., " applicant's counsel was referring to data storage where the database, i.e., a legacy database, was stored with only the availability of Y<sub>1</sub>Y<sub>2</sub>, to discern the proper century. In addition it is clear that when applicant's counsel again uses this term in stating "[h]owever the method of the present invention need not store the converted date in data storage," that this is the same data storage where the original legacy database is stored, with its limitations, e.g., as to ability to store date data in other than a two character year date data format. Applicant's counsel immediately goes on to state "[i]nstead, the original dates in the data storage remain undisturbed." Thus the original legacy database remains as it was with no changes. Applicant's counsel then immediately thereafter goes on to say that "[t]his aspect of the present invention thus allows conversion of dates to compensate for century designations without requiring the addition of data fields to permanently store the century designations." This also makes in clear that when applicant's counsel asserted that "the

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to performing a printing program after a sorting program. The Examiner did not object to this reference to

claimed invention does not require that the converted data that includes the century designations be stored in data storage," he was referring to storing the converted data back in the original date data fields of the legacy database, within the "data storage." It is evident also that the statement by applicant's counsel that "the amended set of claims does not require storage of the converted data and therefore imposes no requirement for new data fields," is referring to storage of the converted data in new data fields in the legacy database, within the "data storage." Further it is clear that the comment of applicant's counsel, that "conventional date formatting systems typically require additional data fields for storage to accommodate the century designations," means that the problem being addressed is being able to sort, manipulate and otherwise run programs on these date representations without modifying the existing fields in the database or changing that data in those fields permanently.

Indeed, as the specification points out and as those in the art would have known at the time, the legacy database is not readily susceptible of changing the format of those date data fields for permanently modifying the date data format contained in the legacy database. Applicant's counsel's comment that "[t]hese additional data fields are necessary because conventional systems disclose a permanent reformatting of stored data," clearly refers the undesirable prior art solution of the Y2K problem by reformatting the legacy database itself and then, e.g., reformatting all of the date data and also the fact that this solution does require that new data fields be added to the legacy database.

Additionally, in the context of this argument, the applicant's counsel's assertion that "[t]he claimed invention, on the other hand, does not require that the reformatted data be permanently stored. Instead, the method of [the] claimed invention encompasses embodiments in which the date information is initially reformatted and converted to have century designations, but does not require that the reformatted dates be stored," is plainly talking about the lack of need for permanent storage within the existing date data fields of the legacy database. One skilled in the art would plainly understand this from the disclosure, with or without Exhibit A.

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performing a sorting program or a printing program.

Even Shaughnessy, as noted above, in his method has to store one or two dates processed each time by the called subroutine in some form of data storage, even if it is a register or cache memory in the processor. Clearly the set of date data, which has been converted and reformatted, according to the claimed invention, must be stored somewhere for the additional process steps of, e.g., sorting or manipulating (or as shown in Exhibit A, sorting by model number and then sorting by date) in order for these later process steps to be performed. This would have been understood by one of ordinary skill in the art from the disclosure, especially with Exhibit A. What is not changed is the date data as it had been stored in the data storage that contains the original legacy database. Not only would this have been evident to one of ordinary skill in the art at the time of the filing of the Dickens patent, this is what applicant's counsel argued to the Examiner:

As stated previously, the *method of one embodiment of the claimed invention reads the dates from the database and temporarily reformats the dates with century designations. Data manipulation programs are then performed on these reformatted dates, such as sorting the dates. However, once the data manipulations are complete, the reformatted dates need not be stored in data storage.* (Emphasis added)

This is the same "data storage" referenced by applicant's counsel to be where the legacy database was stored. Applicant's counsel continued:

*[i]nstead the dates in the data storage can remain the same as they were prior to the temporary reformatting of the data by the method of the claimed invention.*

Thus in these embodiments, the method of the claimed invention *does not require additional data fields for storage because the reformatted dates with the century designations are only used 'on the fly' for data manipulation and are not stored in data storage.*

It should be plain from this prosecution history that the original Examiner understood the claimed invention to be what applicant now asserts it is according to the meaning of the claims as allowed in the Dickens patent. This meaning applies as well to the claims added herein in the Reissue application. That is, the method allows the

extraction from an existing legacy database with date data stored in a format, e.g., using only Y<sub>1</sub>Y<sub>2</sub>, that is Y2K ambiguous, temporarily converting and reformatting each of the extracted dates to a format, e.g., C<sub>1</sub>C<sub>2</sub>Y<sub>1</sub>Y<sub>2</sub>, that is not Y2K ambiguous, performing data manipulation programs on these reformatted dates, that are not stored in the original legacy database fields, but necessarily must be stored somewhere separate from or outside of the original legacy database fields, and utilizing the results of the data manipulation program, without having to have modified the original legacy database and its original fields, formats, links, etc.

Otherwise, the original Examiner would not have removed the rejection based on the change in the claims from "reformatting the symbolic representation of the date in the database" or "reformatting each date in the database," to, respectively, "reformatting the symbolic representation of the date ... to facilitate further processing of the dates" and to "reformatting each date ... to facilitate further processing of the dates," as was done in the Supplemental Response of April 2, 1998, which resulted in allowance. The original Examiner stated:

The Prior Art of Record ... does not anticipate nor suggest the set of limitations of the claims, comprising the threshold year digits as used to determine a pair of century digits to be used for computation, but without enlarging the number of date digits in of the database.

Further stated the Original Examiner in an Interview summary of April 2, 1998:

It was agreed that the summary of the invention, and the arguments of the response, were not entirely in conformity with the claims, which would be potentially allowable if the use of additional century digits did not include their storage in the database.

Claim 10, as noted above has been amended to clarify the same conflict with the disclosure as the original Examiner recognized in the claims as originally filed, i.e., that the reformatted dates are not stored back into the database.

Given the interpretation of the claims as filed originally and issued as amended in the original application leading to the Dickens patent, and the claims added in the current

Reissue application that clarify further the meaning of those original claims, clearly the same reasons as asserted by the original Examiner for allowance of the claims in the original application apply to claims 1-76 in the present application. Moreover, they are entirely correct under the facts and the law and should likewise be applied by the present Examiner.

#### The Examiner's Rejections

As a preliminary matter, the Examiner has made the following statements ("the Examiner's General Statements"):

Because there are so many claims with so many subject matter elements, the detailed, claim by claim analysis may be too repetitive. In an effort to provide an overriding clarity to the following rejections, the following are noted:

- The Shaughnessy reference is an essentially complete teaching of the claimed subject matter. In particular, it teaches modifying those dates that have a two digit identifier less than some predetermined pivot date, changing the format of the date, and sorting the results. However, Shaughnessy does not explicitly state that the predetermined pivot date is less than any date in the database.
- Hazama is provided, consequently, as an explicit teaching of the need for the pivot date to be less than any date in the database.
- Therefore, it follows that, logically, the suggested process of converting all dates in the database, wherein two digit dates are converted into four digit dates as taught in Shaughnessy cannot operate correctly unless the pivot date is less than any date in the database. This is due to the fact that any dates in the database that were less than the pivot date would be incorrectly altered to a date in the succeeding century.
  - o It also follows that this assignment of a pivot date is simply a species of the genus of setting program parameters according the specific input data criteria.

o Further, it follows that one of ordinary skill in the art of programming would know and would be adept at setting parameters to correctly process a set of data. Applicant is reminded that the software development process consists both of design, in which process is matched to the scope of the input, and testing, in which data are entered through the process to check results. Thus, either of which would have provided sufficient notice to the ordinary skilled artisan that setting the pivot date to accommodate the input data is a necessity.

- Although the following claims may be rejected over Shaughnessy alone, given the logical necessity of setting the pivot date properly, and having articulated and placed the above facts and analysis in the record consistent with the recent decision of *In re Lee*, 61 USPQ2d 1430 (CA FC 2002), the Hazama reference is provided to demonstrate that, apart from being logically necessary, this attribute of the pivot date being earlier than the dates in the database was, in fact, known to those of ordinary skill in the art at the time of the invention, and not a ground breaking discovery by the applicant.

Applicant submits that these comments are inappropriate. While almost stating a reliance on at least Shaughnessy under 35 U.S.C. §102, there is no statement of a §102 rejection made in the Office Action and no reference to the statute using Form Paragraph 7.07 et seq., nor repetition of the prior citation as to §102 rejections previously made in this merged proceeding either as to Ohms in Ordering Reexamination or as to Shaughnessy in the First Office Action. See M.P.E.P. §§706.02 (i) and Form Paragraph 7.103. Applicant, therefore, does not consider the reference to Shaughnessy in the above comments to be a §102 rejection.

In addition, these comments fail to properly set forth a rejection under 35 U.S.C. §103. A proper rejection under 35 U.S.C. §103 must contain:

- (A) the relevant teachings of the prior art relied upon, preferably with reference to the relevant column or page number(s) and line number(s) where appropriate,
- (B) the difference or differences in the claim over the applied reference(s),
- (C) the proposed modification of the applied reference(s) necessary to arrive at the claimed subject matter, and
- (D) an explanation why one of ordinary skill in the art at the time the invention was made would have been motivated to make the proposed modification.

M.P.E.P. §706.02 (j).

The Examiner's General Statements do not comply with (A), (B) or (D) above and marginally comply with (C). At a minimum, the Examiner has not referenced any specific portion(s) of the references mentioned, has not applied them to any specific claim language nor given any explanation of any motivation to combine references other than "logical necessity," and the like. This is no better than the baseless hindsight support for combining references found lacking by the Federal Circuit in *In re Lee, supra*, and in *In re Thrift, supra*, and no more supportive of a rejection than the "inherent anticipation" rationale found lacking in *Trintec Industries, Inc., v. Top-U.S.A. Corp.*, 295 F.3d 1292, 63 U.S.P.Q.2d 1597 (Fed. Cir. 2002).

Nevertheless, applicant responds to these comments as follows. Applicant has in the past discussed the references relied upon by the Examiner in this Office Action in great detail and incorporates those discussions herein by reference. As noted by applicant in the past in regard to Shaughnessy, it is not true, as the Examiner asserts, that Shaughnessy "teaches modifying those dates that have a two digit identifier less than some predetermined pivot date, changing the format of the date, and sorting the results." To the extent that "those dates" is intended by the Examiner to mean the recited "all of the symbolic representations of dates" and/or "each symbolic representation of dates," Shaughnessy's teaching, at best, is "modifying those dates that have a two digit identifier less than some predetermined pivot date, changing the format of the date" only with respect to one, or at most two, dates sent to a called subroutine when an application encounters a two digit date data and an instruction, e.g., to determine if that date is in the

past or future, i.e. to compare it to some other single fixed date, or, e.g., to compare two dates encountered by the application program. Furthermore, Shaughnessy does not perform the step of and “sorting the results,” if the Examiner means the claimed results of “reformatting” “each” or “all” reformatted symbolic representations in the data base. Shaughnessy sorts between a single fixed date and a forwarded date or between two dates forwarded from the application and returns to the application a “parameter” indicating the result of, e.g., the sorting of the two dates.

Hazama, similar to Shaughnessy, has a “computer system ... processing section [which] replaces the code for the tens place in the last two digits of the year AD with a code that maintains the year order.” To do this, the two digit date code is sent by the program processor, referred to as “work area” 8 or “clear area” 8, to a module 10 and the modified date is returned to the processor “work area” or “clear area” 8. Therefore, even with the disclosure in Hazama “of the need for the pivot date to be less than any date in the database” the claimed invention is no more disclosed than in Shaughnessy.

It is simply not true that Shaughnessy teaches or suggests the “process of converting *all dates* in the database, wherein two digit dates are converted into four digit dates as taught in Shaughnessy ... .” (Emphasis added)

It also does not follow from the asserted combination of Shaughnessy and Hazama as proposed by the Examiner because “it follows that one of ordinary skill in the art of programming would know and would be adept at setting parameters to correctly process a set of data,” means that the combination of Shaughnessy and Hazama results in the claimed invention. Assuming that the Examiner means “sets of data” to be the recited “all of the symbolic representations of dates” and/or “each symbolic representation of dates” in the database, Shaughnessy, as noted above, contains no such disclosure.

Indeed, because of the way Shaughnessy is disclosed to operate, it cannot perform the claimed process, and therefore, teaches away. Shaughnessy by returning a “parameter” to the program cannot reformat each or all of the date data representations in the data base and then perform further programming “sorting” or “manipulating” on the reformatted date data, since the “parameter” returned to the program is specific to an

operation, e.g., comparison, specific only to the two particular date representations being operated on by Shaughnessy for purposes of returning the parameter to the program. The “parameter” simply indicates, e.g., the one date is greater than, equal to or less than the other, and is not correlated to any other date data representation in or extracted from the database for purposes of further processing. It is, therefore, not a conversion and reformatting that “facilitates further processing of the dates” taken from the database as claimed.

The Examiner’s comment about Shaughnessy complemented by “logical necessity” disclosing the entire claimed invention is inappropriate under *Trintec, supra*, and incorrect in light of fact that Shaughnessy, with the addition of the selection of a pivot date based on the earliest date in the data base, still does not result in each and every element of the claimed invention.

None of the Examiner’s reasons for combining any of the references applied by the Examiner in the present application, as the Examiner has proposed to combine them, even assuming to do so would in any such case result in the claimed invention from the combination of disclosures, which it would not, is any more detailed or enlightening of a specific rationale suggesting combination of those references than the Examiner’s positions in *In re Lee, supra*, or *In re Thrift, supra*.

As the Federal Circuit noted in *Lee*:

‘The factual inquiry whether to combine references must be *thorough and searching*.’ ... It must be based on *evidence of record*. ... [T]he best defense against the subtle but powerful attraction of a hindsight-based obviousness analysis is a rigorous application of the requirement for a showing of the teaching or motivation to combine prior art references. ... [T]eachings of references can be combined *only* [emphasis in original] if there is some suggestion or incentive to do so.’ 277 F.3d at 1343 (Citations omitted and except as noted, emphasis added)

Claims 1-3, 5, 7, 9-10 have been rejected under 35 U. S. C. 103 (a) as obvious over US. Patent No. 5, 630,118, entitled SYSTEM AND METHOD FOR MODIFYING AND OPERATING A COMPUTER SYSTEM TO PERFORM DATE OPERATIONS

ON DATE FIELDS SPANNING CENTURIES, issued to Shaughnessy on May 13, 1997 on an application filed on November 21, 1994 ("Shaughnessy") in view of Japanese Patent Application No. 05-027947, published on February 5, 1993 ("Hazama").

This is the identical rejection as was made by the Examiner in the prior Office Action with the elimination of the Rejection under 35 U.S.C. § 102 (e) based upon Shaughnessy alone.

As to claim 1 The Examiner has made essentially the identical assertions made in the 35 U.S.C. § 103 rejection over Shaughnessy and Hazama as was asserted in the prior Office Action with the exception of adding that "Shaughnessy also suggests the conversion of all dates within the database from a two digit format to a four digit format as a viable, but costly alternative for the year 2000 problem (Col. 1, lines 31-46 et seq.)"

In addition, the Examiner has removed the assertion that Shaughnessy discloses the selection of a "pivot year" as claimed. The Examiner has also added the assertion that Shaughnessy discloses the step of "reformatting" by in addition "returning one date field with the converted date to the subroutine and a means for returning a parameter to the application program for use in further operations (Co. 1, lines 45-54 et seq).

Applicant hereby repeats and incorporates by reference the responses to the Examiner's rejection as to claim 1 in the Response to the prior Office Action in this application, as well as the other prior discussions of Shaughnessy and/or Hazama from prior submissions in this Merged Proceeding, herein incorporated above by reference for purposes of response to this rejection and the subsequent prior art references involving Shaughnessy and/or Hazama discussed below.

In addition, applicant asserts the following.

Shaughnessy does not "suggest[] the conversion of all dates within the database from a two digit format to a four digit format as a viable, but costly alternative for the year 2000 problem (col. 1, lines 31-46 et seq)." In the cited passage, Shaughnessy is either saying that as to, e.g., a legacy data base it is difficult and expensive to modify the format, fields, etc. for the data base to only include 4 character date representations, with which applicant is in agreement (see Col. 1, lines 35 – 41 of the Dickens Patent), or

teaching away from the applicant's proposed solution, or both, as the cited passage is not entirely clear as to what would be the objectionable thing to avoid. See also Shaughnessy's discussion in Col. 4, lines 7-26. The fact that Shaughnessy specifically teaches a separate way than the claimed invention to solve this problem, also teaches away from the claimed invention. At best this cited portion of Shaughnessy recognizes what the problem is that both Shaughnessy and the claimed invention set out to alleviate, but Shaughnessy takes a different approach.

Shaughnessy does not "discloses the claimed 'all of the symbolic representations of dates falling within a 10 decade period of time' as a date having a cycle or a range of a 100 years (col. 18, Cycle/Range C1= THE DATE CYCLE IS 100 YEARS)." The table of the Appendix to which the Examiner refers is identified by Shaughnessy as "illustrating a sample of the *types of date formats* the present invention can support." (Col 3, lines 43-45. The fact that a cycle for dates of a given one of many listed formats in the referenced table may be 100 years teaches nothing about the selection of a range of dates that are *in a data base* upon which the method of Shaughnessy is utilized. Indeed, a number of the ranges listed as to which Shaughnessy says "the present invention can support," are longer than 100 years. Once again the teaching of Shaughnessy is away from the present invention, in that it does not require the claimed recitation "all of the symbolic representations of dates falling within a 10 decade period of time."

For this same reason, it is inappropriate hindsight analysis using only the teaching of the applicant's disclosure to say that:

As pointed out in column 2, lines 11-14 and column 3, lines 4-8 of Patent No. 5,806,063, all dates in commercial and industrial databases span within one 100 year. Shaughnessy's system being of the commercial or industrial kind described in the cited patent, must therefore, as a practical matter, incorporate this limitation.

The "commercial or industrial" databases which Shaughnessy invention "can support," are specifically identified by Shaughnessy to include data bases where the data contained could include a span of over 100 years. To the extent that this is a statement by

the examiner that there is some inherent disclosure in Shaughnessy in this regard, it is improper under *Trintec, supra*.

Shaughnessy does not teach:

the step of 'determining a century designator C. sub.1 C. sub.2 for each symbolic representation of a date in the database, C. sub. 1 C. sub.2 having a first value if Y. sub.1 Y. sub. 2 is less than Y. sub. A Y. sub. B and having a second value if Y. sub. 1 Y. sub. 2 is equal to or greater than Y. sub. A Y. sub. B' as the comparison of the current date to the date when the system was installed with the modifications (modified system install date) to thereby determine the century value (col.5, lines 36-65 et seq).

While this portion of Shaughnessy does disclose the form of windowing that Shaughnessy proposes, using the install date as the pivot date, in the context of the remainder of the disclosure of Shaughnessy this is not disclosed to be done for "each symbolic representation of a date in the database," in preparation for and facilitation of further processing of the reformatted symbolic representations. As noted above Shaughnessy does windowing and reformatting for one or two date representations at a time in the called subroutine.

The same can be said for the cited portion of Shaughnessy cited to disclose: the comparison of the YYMMDD portion of the date to the corresponding date portion at the end of the 100 year cycle to thereby determine the century value (col.7, lines 7-15 et seq).

Shaughnessy also does not disclose:

the step of 'reformatting the symbolic representation of the date with the values C. sub. 1 C. sub.2, Y. sub. 1 Y. sub.2, M. sub. 1 M. sub. 2 , and D. sub. 1 D. sub. 2 to facilitate further processing of the dates' by appending the determined century value before the YYMMDD date in order to yield a CCYYMMDD date format (col.5, lines 46-51; col.6, lines 57-65 et seq) ...

The "reformatting the symbolic representation of the date" must be read in the context of the earlier claim recitations that define the context of this process limitation to

mean performing reformatting on “each” or “all” date data representations that have previously been the subject of the claimed form of windowing prior to this reformatting step. Further the claimed reformatting is to “facilitate further processing of the dates.” As noted above, Shaughnessy reformats at most two pieces of date data information from the data base at a time and returns a parameter that gives a result of processing done in the called up subroutine of Shaughnessy, but does not “facilitate further processing of the dates.”

Shaughnessy does not disclose:

“returning one date field with the converted date to the subroutine and a means for returning a parameter to the application program for use in further operations (col.1, lines 47-54 et seq).

The cited portion of Shaughnessy, which appears to be in Col. 2 as opposed to Col. 1, refers to “passing at least one date field *to* the subroutine [and] a means for *returning a parameter* to the application ... .” The “parameter,” is not a reformatted date or dates, and is “for use by the application program in further operation.” (Col. 2, lines 53-54, Emphasis added) An example of this is “[I]f the result received from the subroutine [the parameter] indicates that the date the next payment is due is greater than today’s date [the program can go on to] indicate that the account is OK.” (Col 4, lines 59-61) Shaughnessy also notes as an alternative to the above, the Shaughnessy process may “pass[] at least one date field which is representative of at least two dates *to* the subroutine, determining which if the two dates corresponds to the date field operation according to a predetermined criteria , performing the date operation on the date field, and *returning the parameter* to the application program ... .” (Col. 2, lines 59 – 64, Emphasis added).

Finally, as to the Examiner’s view that:

The ordinary skilled artisan having read Shaughnessy would immediately see the need to determine which 100 year span to use. This determination would have led the ordinary skilled artisan to the Hazama reference, which teaches the pivot date being smaller than the smallest two digit date in the database having all the dates

within a 100 year period as a solution to restrict the selection of Shaughnessy's window and thereby forcing all dates already stored in the database to fall in the 20th century.

The Examiner has given no evidence other than the conclusory statement that the person skilled in the art would "immediately see" from the disclosure of Shaughnessy that it is flawed and needs modification. The fact is Shaughnessy teaches a very specific way of selecting a one hundred year window, and it is not based on the earliest date in the data base. In this regard Shaughnessy actually teaches away. Further, applicant does not understand the import of the latter portion of the Examiner's view regarding "as a solution to restrict the selection of Shaughnessy's window and thereby forcing all dates already stored in the database to fall within the 20<sup>th</sup> century." Does the Examiner mean that this is what Shaughnessy would teach one of ordinary skill or that the combination of Shaughnessy and Hazama would teach one of ordinary skill? In either event, all dates falling in the 20<sup>th</sup> century is a situation in which there is no Y2K problem to solve, so that either Shaughnessy or the combination of Shaughnessy and Hazama also teach away. Is this the Examiner's intent?

For the above noted reasons, the addition of Hazama's disclosure of a pivot date smaller than the smallest date in the database does not result in a *prima facie* showing of obviousness, because, at least, the above noted elements of the claimed invention are not shown in Shaughnessy. Further, the requirements for combining the references under *In re Lee, supra*, *In re Title, supra*, and/or *Trintec, supra*, have not been met. The method of operation and/or the theory of operations of Shaughnessy, or Hazama would respectively have to be changed to be combined one with the other.

The Examiner has essentially repeated verbatim the rejections of claims 2, 3, 5, 7, and 9-10 from the prior Office Action in this application, with the addition in the rejection of claim 9 of the following:

Also Shaughnessy col. 1 lines 31-35 and col. 4 lines 12-23 indicate this is in fact one solution to the Y2K problem, but suggests that it is an expensive solution - Shaughnessy teaches away only from an economic, not a technical viewpoint. The

examiner takes administrative notice that this solution of storing the symbolic representations back in the database, again, taught by Shaughnessy as an available solution, is the only permanent solution, and is therefore inevitable - the economic rationale in Shaughnessy is temporary - eventually the data in a database spans over 100 years.

Applicant hereby repeats and incorporates by reference the assertions made in response to the rejections of claims 2, 3, 5, 7 and 9-10 in the Response to the prior Office Action. Applicant hereby repeats and incorporates by reference the responses to the Examiner's rejection as to claim 1 above.

In addition, applicant asserts as follows.

In regard to the rejection of claim 5, Shaughnessy does not teach the claimed step as to "each symbolic representation of a date."

In regard to the rejection of claim 9, the cited portion of Shaughnessy, actually including also Col. 5, lines 10 – Col. 6, line 35 refers to the setting by the subroutine of the "current date (box 14), the end of the hundred year cycle (box 16) and the two possible century values (box 18)" for utilization inside the subroutine and has nothing to do with the recited "'storing the symbolic representation of dates and their associated information back into the database after the step of reformatting'" from claim 9. "Administrative notice" is not a substitute for providing a reference. See *In re Lee*, *supra*, *In re Tittle*, *supra*, *Trintec*, *supra*. Neither is this notice of something capable of being "instantly and unquestionably demonstrated as well known" as required by M.P.E.P. §2144.03 and *In re Ahlert*, *supra*.

The above discussion also addresses the Examiner's position that:

Also Shaughnessy col. 1 lines 31-35 and col. 4 lines 12-23 indicate this is in fact one solution to the Y2K problem, but suggests that it is an expensive solution - Shaughnessy teaches away only from an economic, not a technical viewpoint.

As to the rejection of claim 9 Shaughnessy does not disclose "storing the symbolic representations of dates and their associated information back into the database," i.e., after the step of "facilitating the further processing," and after such further

processing, e.g., date sorting, the dates and information may be reorganized in the database according, e.g., to the results of the sorting, again, without modifying the symbolic representations of dates in the database itself.

For the above stated reasons the rejections of claims 1-3, 5, 7, and 9-10 over the combination of Shaughnessy and Hazama, is not proper. There is no *prima facie* case of obviousness due to the lack of support in the Shaughnessy reference for most the interpretations of the teaching(s) of Shaughnessy upon which the Examiner relies noted above. There has also been an inadequate showing of a motivation to combine the references in accordance with either *In re Lee, supra*, or *In re Title, supra*, and an improper hindsight reliance on the teaching of the applicant under those two cases and in addition *Trintec, supra*. Also, the combination does not contain all of the claimed steps of the process as recited in the claims. Further the references must have their mode and/or theory of operation changed to be combined one with the other as the Examiner suggests.

For these reasons, the Examiner is respectfully requested to withdraw the rejections of claims 1-3, 4, 7 and 9-10 and allow those claims.

Claims 4, 6, 8 have been rejected under 35 U.S.C. §103 (a) as being unpatentable over Shaughnessy in view of Hazama, as applied to the rejection of claims 1-3, 5, 7, 9-10 above, further in view of Booth et al., Implementation in Clipper 5A Developer's Guide ("Booth"). The Examiner has removed the rejection from the prior Office Action based upon 35 U.S.C. §103 based upon Shaughnessy in view of Booth. The Examiner has essentially repeated the rejection of the prior Office Action based upon Shaughnessy, Hazama and Booth.

The applicant repeats and incorporates by reference the assertions made in the Response to the prior Office Action as to the rejections of claims 2, 4, and 8, as well as the applicants response to the Examiner's General Statements, and the discussion above in regard to claim 1, and further the prior statements of applicant regarding the disclosure and applicability of Booth from other submissions in this Merged Proceeding, herein

incorporated by reference as to the rejection of these claims and as to rejections discussed below in which Booth is relied upon as a reference.

In addition applicant asserts as follows:

Booth, as noted by applicant before, is non-analogous art and actually teaches away from the present invention as claimed. Booth and the Clipper system described therein use integer dating which does not suffer from the problems sought to be solved by the claimed invention, i.e., there is no Y2K date ambiguity that needs to be addressed in the processing of date data stored in a database according to the Clipper system. Booth does disclose windowing and using a ten decade window, but it is not in the context of the claimed invention. For example, it is not for the purpose of "facilitating further processing of the dates [in the database]." Booth's use of windowing is also not disclosed to be "reformatting the symbolic representation of the date [for each/all representations of dates stored in the database]." In addition Booth does not teach "sorting the symbolic representations of the dates" in a CCYYMMDD or like format, since dates in Booth are sorted by comparison of the integer value that computes to the appropriate date, including its four character year value. Indeed, modifying Shaughnessy or the combination of Shaughnessy and Hazama with Booth, which teaches storing and manipulating (operating programs on) date data that is in integer form, would render Shaughnessy and/or the combination of Shaughnessy and Hazama inoperative for their intended purpose(s). The intended purpose for Shaughnessy and Hazama is to correct the problem of Y2K ambiguity for date data stored in a database in a form that gives rise to the ambiguity, and Booth (as does Ohms) stores date data in a form that has no Y2K ambiguity. See M.P.E.P. § 2143.01, *citing, In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984). In the same way, the proposed combination would change the principle of operation of Shaughnessy and/or the combination of Shaughnessy and Hazama. See M.P.E.P. § 2143.01, *citing, In re Ratti*, 270 F.2d 810, 123 U.S.P.Q. 349 (CCPA 1959)

Therefore, the combination of Shaughnessy, Hazawa and Booth does not create *prima facie* obviousness, since even beyond the elements lacking from Shaughnessy, Booth lacks claim elements as just noted. In addition there is no motivation to combine

non-analogous art, especially where Booth teaches away from the claimed invention, at least, to the extent it teaches addressing the Y2K problem by storing date data in a form that is not susceptible to the Y2K ambiguity problem, and does not need to be modified in any way to be able to be fully sorted, manipulated or otherwise processed without concern for any possible confusion between, c.g., the integer value that represents a date in the year 2002 and the totally unique and fully determinative integer value that represents a date in the year 1902, or, for that matter, 3002, 4002 and so on. The Examiner has not complied with *In re Lee, supra*, *In re Title, supra*, or *Trintec, supra*, in making the combination of references and in the interpretation of references relied upon for the rejection.

The same is applicable to the Examiner's proposed rejection of claims 6 and 8 over Shaughnessy, Hazama and Booth.

For the above stated reasons the rejections of claims 4, 6 and 8 over the combination of Shaughnessy, Hazama and Booth, is not proper. There is no *prima facie* case of obviousness due to the lack of support in the Shaughnessy reference for most of the interpretations of the teaching(s) of Shaughnessy upon which the Examiner relies noted above. There has also been an inadequate showing of a motivation to combine the references in accordance with either *In re Lee, supra*, or *In re Title, supra*, and an improper hindsight reliance on the teaching of the applicant under those two cases and in addition *Trintec*. Also, the combination does not contain all of the claimed steps of the process as recited in the claims. Further the references must have their mode and/or theory of operation changed to be combined one with the other as the Examiner suggests. In addition the addition of Booth to Shaughnessy and Hazama would change the intended purpose of both Shaughnessy and Hazama.

For these reasons, the Examiner is respectfully requested to withdraw the rejections of claims 4, 6 and 8 and allow those claims.

Claims 11-15 have been rejected under 35 U.S.C. §103 (a) as being unpatentable over Shaughnessy in view of Hazama, and further in view of Booth. The Examiner has removed the rejection from the prior Office Action under 35 U.S.C. § 103 based upon

Shaughnessy in view of Booth. The Examiner has essentially repeated verbatim the rejections of the claims 11 – 15 from the prior Office Action adding the assertion that “Shaughnessy also suggests the conversion of all dates within the database from a two digit format to a four digit format as a viable, but costly alternative for the year 2000 problem (Col. 1, lines 31-46 et seq.)”

Applicant hereby repeats and incorporates by reference the assertions made in the Response to the prior Office Action and in regard to the rejection of claims 1 and 4 above.

For the same reasons as discussed in the Response to the prior Office Action and above as to the rejection of claim 1, and 4, the rejection of claims 11 – 15 are not proper. There is no *prima facie* case of obviousness due to the lack of support in the Shaughnessy reference for most of the interpretations of the teaching(s) of Shaughnessy upon which the Examiner relies noted above. There has also been an inadequate showing of a motivation to combine the references in accordance with either *In re Lee, supra*, or *In re Title, supra*, and an improper hindsight reliance on the teaching of the applicant under those two cases and in addition *Trintec*. Also, the combination does not contain all of the claimed steps of the process as recited in the claims. Further the references must have their mode and/or theory of operation changed to be combined one with the other as the Examiner suggests. In addition the addition of Booth to Shaughnessy and Hazama would change the intended purpose of both Shaughnessy and Hazama.

For these reasons, the Examiner is respectfully requested to withdraw the rejections of claims 4, 6 and 8 and allow those claims.

Claims 16-18, 20, 22 and 24-25 have been rejected under 35 U.S.C. §103 (a) as obvious over Shaughnessy in view Hazama. The Examiner has removed the rejection of claims 16-18, 20, 22 and 24-25 under 35 U.S.C. §102 over Shaughnessy. The Examiner has essentially repeated verbatim the rejections of claims 16-18, 20, 22 and 24-25 under 35 U.S.C. §103 based upon Shaughnessy and Hazama from the prior Office Action, with the addition, discussed above with respect to claim 1, that “ Shaughnessy also suggests the conversion of all dates within the database from two digit format to a four digit

format as a viable, but costly alternative for the year 2000 problem (col. 1, lines 31-46 et seq).”

Applicant hereby repeats and incorporates by reference the assertions made in the Response to the prior Office Action in regard to the Examiner’s rejections in the prior Office Action as to Claims 16-18, 20, 22 and 24-25, and in addition the assertions made above in response to the Examiner’s rejections of claims 1-3, 5, 7, and 9-10.

Applicant in addition asserts that the recitation:

reformatting the symbolic representation of each symbolic representation of a date in the database, without the addition of any new data field to the database, with the reformatted symbolic representation of each date in the database having the values C<sub>1</sub> C<sub>2</sub>, Y<sub>1</sub> Y<sub>2</sub>, M<sub>1</sub> M<sub>2</sub>, and D<sub>1</sub> D<sub>2</sub>, in order to facilitate collectively further processing the reformatted symbolic representations of each of the symbolic representations of each of the dates ...

even further distinguishes the art relied upon by the Examiner from the combination of Shaughnessy and Hazama. Contrary to the Examiner’s assertion, and as indicated by the above discussion of Shaughnessy, Shaughnessy does not disclose “reformatting ... in order to facilitate *collectively further processing the reformatted symbolic representations of each of the symbolic representations of each of the dates.*” For this reason, the impropriety of the Examiner’s rejection as discussed in the applicant’s Response to the prior Office Action and also above and in regard to claim 1 is further supported.

For the reasons noted above the Examiner’s rejection of claim 16-18, 20, 22, 24 and 25 is improper. There is no *prima facie* case of obviousness due to the lack of support in the Shaughnessy reference for most of the interpretations of the teaching(s) of Shaughnessy upon which the Examiner relies noted above. There has also been an inadequate showing of a motivation to combine the references in accordance with either *In re Lee, supra*, or *In re Title, supra*, and an improper hindsight reliance on the teaching of the applicant under those two cases and in addition *Trintec*. Also, the combination does not contain all of the claimed steps of the process as recited in the claims. Further

the references must have their mode and/or theory of operation changed to be combined one with the other as the Examiner suggests.

For these reasons, the Examiner is respectfully requested to withdraw the rejections of claims 16-18, 20, 22, 24 and 25 and allow those claims.

Claims 19, 21, 23 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Shaughnessy in view of Hazama, as applied to the rejection of claims 16-18, 20, 22, 24-25, above, further in view of Booth. The Examiner has withdrawn the rejection of claims 19, 21 and 23 under 35 U.S.C. §103 over Shaughnessy in view of Booth. The Examiner has essentially repeated the identical rejection of claims 19, 21 and 21 from the prior Office action based upon the combination of Shaughnessy, Hazama and Booth.

Applicant hereby repeats and incorporates by reference the assertions made in response to the rejection of claims 19, 21 and 23 in the Response to the prior Office Action. In addition applicant responds as above in regard to the rejections of claims 4, 6 and 8.

For the reasons noted above the Examiner's rejection of claims 19, 21 and 21 is improper. For the same reasons as discussed in the Response to the prior Office Action and above as to the rejection of claim 1, and 4, the rejection of claims 19, 21 and 21 are not proper. There is no *prima facie* case of obviousness due to the lack of support in the Shaughnessy reference for most of the interpretations of the teaching(s) of Shaughnessy upon which the Examiner relies noted above. There has also been an inadequate showing of a motivation to combine the references in accordance with either *In re Lee, supra*, or *In re Title, supra*, and an improper hindsight reliance on the teaching of the applicant under those two cases and in addition *Trintec*. Also, the combination does not contain all of the claimed steps of the process as recited in the claims. Further the references must have their mode and/or theory of operation changed to be combined one with the other as the Examiner suggests.

For these reasons, the Examiner is respectfully requested to withdraw the rejections of claims 19, 21 and 21 and allow those claims.

Claims 26-30 have been rejected under 35 U.S.C. §103 (a) as being unpatentable over Shaughnessy in view of Hazama, and further in view of Booth. The Examiner has withdrawn the rejection of claims 26-30 under 35 U.S.C. §103 over Shaughnessy in light of Booth. The Examiner has essentially repeated the rejections of claims 26-30 from the prior Office Action.

The applicant repeats and hereby incorporates by reference the applicant's assertions regarding the rejection of claims 26-30 as contained in the applicant's response to the prior Office Action, and in addition applicant's response above as to the rejections of claims 11-15 regarding the rejections of claims 26-30.

For these reasons the Examiner's rejections of claims 26 -30 are improper.. There is no *prima facie* case of obviousness due to the lack of support in the Shaughnessy reference for most of the interpretations of the teaching(s) of Shaughnessy upon which the Examiner relies noted above. There has also been an inadequate showing of a motivation to combine the references in accordance with either *In re Lee, supra*, or *In re Title, supra*, and an improper hindsight reliance on the teaching of the applicant under those two cases and in addition *Trintec*. Also, the combination does not contain all of the claimed steps of the process as recited in the claims. Further the references must have their mode and/or theory of operation changed to be combined one with the other as the Examiner suggests. In addition the addition of Booth to Shaughnessy and Hazama would change the intended purpose of both Shaughnessy and Hazama.

For these reasons, the Examiner is respectfully requested to withdraw the rejections of claims 26-30 and allow those claims.

Claim 31-33 have been rejected under 35 U. S. C. 103 (a) as being unpatentable over Shaughnessy in view of Hazama. The Examiner has withdrawn the rejection of claims 31-33 under 35 U.S.C. §102 over Shaughnessy. The Examiner has essentially repeated the rejections of claims 31-33 from the prior Office Action, with the additions above noted in regard to the rejections of claims 1 and 11..

Applicant hereby repeats the assertions made by applicant regarding the rejections of claims 31-33 in the applicant's Response to the prior Office Action and in addition the above response regarding the Examiner's rejection of claims 1, 11 and 16.

For these reasons, the Examiner's rejections of claims 31-33 are improper. There is no *prima facie* case of obviousness due to the lack of support in the Shaughnessy reference for most of the interpretations of the teaching(s) of Shaughnessy upon which the Examiner relies noted above. There has also been an inadequate showing of a motivation to combine the references in accordance with either *In re Lee, supra*, or *In re Title, supra*, and an improper hindsight reliance on the teaching of the applicant under those two cases and in addition *Trintec*. Also, the combination does not contain all of the claimed steps of the process as recited in the claims. Further the references must have their mode and/or theory of operation changed to be combined one with the other as the Examiner suggests.

For these reasons, the Examiner is respectfully requested to withdraw the rejections of claims 31-33 and allow those claims.

Claims 34-59 are rejected under 35 U.S.C. §103 (a) as being unpatentable over Shaughnessy in view of Hazama, and further in view of Booth. The Examiner has withdrawn the rejection of claims 34-59 under 35 U.S.C. §103 over Shaughnessy in view of Booth. The Examiner has essentially repeated the rejections of claims 34-59 from the prior Office Action with the addition made in regard to the rejection above of claim 1 regarding the suggestion in Shaughnessy of converting all dates in the database.

Applicant hereby repeats and incorporates by reference the assertions made by applicant in regard to the Examiner's rejection of claims 34-59 in applicant's response to the prior Office Action and the above assertions in regard to the rejection of claim 1 and of claim 16. In addition, applicant asserts the following.

Booth clearly and unequivocally notes that the dates stored in the database being manipulated by Clipper 5 are stored in integer format with a granularity of date days. As Booth notes at p. 939, "Dates are stored internally in such a way that math operations can be performed on dates to derive other dates. Adding an integer to date will result in a

future date. Subtracting two dates will result in the number of days between the two.” See also Booth at p. 99. Regardless of what Booth may say about date data entry, date display, or the like in the portions of Booth cited by the Examiner, the fact remains that the database of Booth does not use symbolic representations of dates in the Gregorian format, and does not have the Y2K ambiguity problem, since each date as stored is complete with information that indicates it YYYY characters in Gregorian format. Booth’s disclosure of windowing in certain contexts, is, therefore, non-analogous art, teaches away from applicant’s proposed solution to the Y2K date ambiguity problem, in the same way Ohms does. Further whatever sorting Booth proposes it is not of dates reformatted from a YY date data field representation into a YYYY format for purposes of being sorted in that format. Booth sorts in integer format simply by comparing the two integers with each other and the information contained in the integer itself is not Y2K ambiguous.

For these reasons, the Examiner’s rejections of claims 34-59 are improper. There is no *prima facie* case of obviousness due to the lack of support in the Shaughnessy reference for most of the interpretations of the teaching(s) of Shaughnessy upon which the Examiner relies noted above. There has also been an inadequate showing of a motivation to combine the references in accordance with either *In re Lee, supra*, or *In re Title, supra*, and an improper hindsight reliance on the teaching of the applicant under those two cases and in addition *Trintec*. Also, the combination does not contain all of the claimed steps of the process as recited in the claims. Further the references must have their mode and/or theory of operation changed to be combined one with the other as the Examiner suggests. In addition the addition of Booth to Shaughnessy and Hazama would change the intended purpose of both Shaughnessy and Hazama.

For these reasons, the Examiner is respectfully requested to withdraw the rejections of claims 34-59 and allow those claims.

Claim 60-71 have been rejected under 35 U.S.C. §103 (a) as being unpatentable over Shaughnessy in view of Hazama, and further in view of Booth. The Examiner has withdrawn the rejection of claims 60-71 under 35 U.S.C. §103 over Shaughnessy in view

of Booth. The Examiner has essentially repeated the rejection of claims 60-71 contained in the prior Office Action with the addition made in regard to the rejection of claim 1 above.

The applicant hereby repeats the applicant's assertions in response to the Examiner's rejection of claims 61-71 in applicant's Response to the prior Office Action and applicants assertions above in regard to the rejection of claims 1 and 4.

For these reasons, the Examiner's rejections of claims 60-71 are improper. There is no *prima facie* case of obviousness due to the lack of support in the Shaughnessy reference for most the interpretations of the teaching(s) of Shaughnessy upon which the Examiner relies noted above. There has also been an inadequate showing of a motivation to combine the references in accordance with either *In re Lee, supra*, or *In re Title, supra*, and an improper hindsight reliance on the teaching of the applicant under those two cases and in addition *Trintec*. Also, the combination does not contain all of the claimed steps of the process as recited in the claims. Further the references must have their mode and/or theory of operation changed to be combined one with the other as the Examiner suggests. In addition the addition of Booth to Shaughnessy and Hazama would change the intended purpose of both Shaughnessy and Hazama.

For these reasons, the Examiner is respectfully requested to withdraw the rejections of claims 60-71 and allow those claims.

Claims 72, 73 and 75 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Shaughnessy in view of Hazama. The Examiner has withdrawn the rejection of claims 72, 73 and 75 under 35 U.S.C. §102 over Shaughnessy. The Examiner has essentially repeated the rejection of claims 72, 73 and 75 from the prior Office Action with the addition of the assertion added to the rejection of claim 1 discussed above.

Applicant hereby repeats and incorporates by reference the applicant's assertions regarding the rejections of claims 72, 73 and 75 contained in applicant's response to the prior Office Action, along with the applicant's above assertions regarding the rejection of

claim 1, and in addition the assertions regarding, e.g., the propriety of combining the references asserted above, e.g., in regard to claims 4, 6, 13 and 14.

For these reasons, the Examiner's rejections of claims 72, 73 and 75 are improper. There is no *prima facie* case of obviousness due to the lack of support in the Shaughnessy reference for most of the interpretations of the teaching(s) of Shaughnessy upon which the Examiner relies noted above. There has also been an inadequate showing of a motivation to combine the references in accordance with either *In re Lee, supra*, or *In re Title, supra*, and an improper hindsight reliance on the teaching of the applicant under those two cases and in addition *Trintec*. Also, the combination does not contain all of the claimed steps of the process as recited in the claims. Further the references must have their mode and/or theory of operation changed to be combined one with the other as the Examiner suggests.

For these reasons, the Examiner is respectfully requested to withdraw the rejections of claims 72, 73 and 75 and allow those claims.

Claims 74 and 76 have been rejected under 35 U.S.C. §103 (a) as being unpatentable over Shaughnessy in view of Hazama, and further in view of Booth. The Examiner has withdrawn the rejection of claims 74 and 76 under 35 U.S.C. §103 over Shaughnessy in view of Booth. The Examiner has essentially repeated the rejection of claims 74 and 76 from the prior Office Action with the addition only in the rejection of claim 76 of the assertion added to the rejection of claims 1. The rejection of claim 74 is essentially identical to that contained in the prior Office Action.

Applicant hereby repeats and incorporates by reference the applicant's assertions regarding the rejections of claims 74 and 76 contained in applicant's response to the prior Office Action, along with the applicant's above assertions regarding the rejection of claims 1 and 4.

For these reasons, the Examiner's rejections of claims 74 and 76 are improper. There is no *prima facie* case of obviousness due to the lack of support in the Shaughnessy reference for most of the interpretations of the teaching(s) of Shaughnessy upon which the Examiner relies noted above. There has also been an inadequate showing of a

motivation to combine the references in accordance with either *In re Lee, supra*, or *In re Title, supra*, and an improper hindsight reliance on the teaching of the applicant under those two cases and in addition *Trintec*. Also, the combination does not contain all of the claimed steps of the process as recited in the claims. Further the references must have their mode and/or theory of operation changed to be combined one with the other as the Examiner suggests. In addition the addition of Booth to Shaughnessy and Hazama would change the intended purpose of both Shaughnessy and Hazama.

For these reasons, the Examiner is respectfully requested to withdraw the rejections of claims 74 and 76 and allow those claims.

Claims 1-76 have been rejected under 35 U.S.C. §103 (a) as being unpatentable over *B. G. Ohms, Computer processing of Dates Outside the Twentieth Century*, IBM Systems Journal, Volume 25, Number 2, 1986, pages 244-251, ("Ohms"), in view of Hazama, and as to some claims further in view of Booth.

The Examiner has essentially duplicated in toto, including typographical errors, unintended capitals, paragraph and phrase separations, etc., word for word, the rejections of the claims on the bases of the combination of these references from the prior Office Action. This includes simply the substitution of the Ohms reference for Shaughnessy in the combination of references, with otherwise essentially the same arguments as made in the above discussed rejections of claims 1-76, where Shaughnessy was a reference without the above discussed insertions made to the Prior Office Action. Applicant hereby repeats applicant's responses to each and every one of those rejections, in the response to the prior Office Action, as well as applicant's discussion above of the rejections of claims 1-76 in the present Office action, and incorporates them herein by reference, including the above incorporated by reference discussions of the disclosure and applicability of Ohms. In addition, applicant asserts as follows.

Applicant also asserts that Ohms does not disclose:

the claimed 'method of processing symbolic representations of dates stored in a database' by presenting a computer implemented method for processing date[s] outside the twentieth century (see title, p 244 et seq).

The symbolic representations of dates in Ohms' database are in the form of a number representing a unique Lilian date and fully includes all year information such that the Y2K ambiguity problem addressed by the present invention is not even present vis-à-vis the date data stored in Ohm's database. Each Lilian date so stored includes (is convertible to) a representation of a full four character year, without Y2K ambiguity, just as is the case with the integer dates employed by Clipper 5 as described in Booth. In addition Ohms does not call for the dates actually stored in the database to be within a ten decade window. In fact they can be anywhere within the span of days capable of being represented by seven digits (the specific embodiment disclosed, but it could be even more) of days, i.e., over 2000 years.

Ohms does not disclose:

'selecting a 10-decade window with a Y. sub. A Y. sub. B value for the first decade of the window, Y. sub. A Y. sub. B being no later than the earliest Y. sub. 1 Y. sub. 2 year designator in the database,' ... .

Ohms does disclose selecting a ten decade window for the windowing of date data being entered, but say nothing at all about selecting this ten decade window based upon any span of dates actually stored in the database.

For the above noted reasons, the addition of Hazama's disclosure of a pivot date smaller than the smallest date in the database does not result in a *prima facie* showing of obviousness, because, at least, the above noted elements of the claimed invention are not shown in Ohms.

Moreover, Ohms, as noted by applicant before, is non-analogous art and actually teaches away from the present invention as claimed. Lilian dating does not suffer from the problems sought to be solved by the claimed invention, i.e., there is no Y2K date ambiguity that needs to be address in the processing of date data as stored by the Ohms system. While Ohms does disclose windowing and using a ten decade window, it is not in the context of the claimed invention. For example it is not for the purpose of "facilitating further processing of the dates [in the database]." Ohm's use of windowing is also not disclosed to be "reformatting the symbolic representation of the date [for

each/all representations of dates stored in the database].” In addition Ohms does not teach “sorting the symbolic representations of the dates” in a CCYYMMDD or like format, since dates in Ohms are sorted by comparison of the integer value that computes to the appropriate date, with the inclusion in the integer value of its four character year value. Indeed, modifying Hazawa, which teaches storing and manipulating (operating programs on) date data that is in, e.g., MMDDYY form, would render Hazawa inoperative for its intended purpose(s). The intended purpose for Hazawa is to correct the problem of Y2K ambiguity for date data stored in a database in a form that gives rise to the ambiguity and Ohms stores date data in a form that is not Y2K ambiguous. See M.P.E.P. § 2143.01, *citing, In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984). In the same way, the proposed combination would change the principle of operation of Hazawa. See M.P.E.P. § 2143.01, *citing, In re Ratti*, 270 F.2d 810, 123 U.S.P.Q. 349 (CCPA 1959)

Therefore, in addition to the above reasons for there being no *prima facie* obviousness, there is no *prima facie* obviousness because there is no motivation to combine non-analogous art, especially where Ohms teaches away from the claimed invention, at least to the extent it teach addressing the Y2K problem by storing date data in a form that is not susceptible to the Y2K ambiguity problem and does not need to be modified in any way to be able to be fully sorted, manipulated or otherwise processed without concern for any possible confusion between the Lilian value that represents all of the days throughout, e.g., the year 2002, including the fact that they are in the year 2002 and the totally unique and fully determinative integer value that represents each of the days in the year 1902, including the fact that each such day in within the year 1902, or, for that matter, 3002, 4002 and so on. The specific embodiment of Ohms using only seven characters to count the dates would have to be expanded to cover a span of more than 2000 years, however, and the starting date of the first day would determine, along with the total number count of days, the end of the span that can be covered. The Examiner has not complied with *In re Lee, supra, In re Title, supra, or Trintec, supra*, in

making the combination of references and in the interpretation of references relied upon for the rejection of the claims over Ohms and Hazama.

Applicant further asserts that the addition of Booth as a reference along with Ohms adds nothing to the combination of references that Ohms itself does not contribute, i.e., a utilization of windowing having a 100 year span for some purpose, but not in the claimed process and/or for the accomplishment of the intended purpose of the claimed invention or any even analogous purpose.

Claims 16-76 further add distinctions over the combination of Ohms and Hazama as discussed in regard to those rejections above where Shaughnessy was employed as a reference. Applicant's assertions above in that regard are incorporated here by reference.

The remainder of the rejections of the claims, with the exception of the rejections of claims 66, 67, 69, 70, 75, are also identical to the rejections above discussed regarding claims 1-76 over Shaughnessy, Hazama and as to same claims Booth. The earlier rejection of claims 66, 67, 69, 70, 75, in this Office Action which employ Shaughnessy in place of Ohms, are based upon Shaughnessy and Hazama, and in the rejections with the replacement of Shaughnessy by Ohms are based upon Ohms, Hazama and Booth. Applicant does not understand this distinction in the Examiner's combination of references in the one case where Shaughnessy is used and in the other where Ohms is used, but asserts that the above discussion of the rejections of claims 66, 67, 69, 70 and 75, along with the discussion of rejections of claims where Booth is added by the Examiner to Shaughnessy and Hazama, along with applicant's responses in the applicant's response to the prior Office Action, fully address these new rejections of claims 66, 67, 69, 70 and 75 over Ohms, Hazama and Booth.

For these reasons the examiner's rejections of claims 1-76 over Ohms, Hazama and as to some claims Booth are improper. The Examiner is respectfully requested to withdraw these rejections of claims 1-76 and allow those claims.

#### 35 U.S.C. §112 REJECTIONS

Applicant submits that the Examiner should have made these 35 U.S.C. §112 rejections in the prior Office Action. The applicant did not amend claims giving rise to

these rejections. The identical issues that the Examiner now raises were presented in the claims as filed, including the claims added in the Reissue Application. Additionally such issues, or essentially identical ones, should have been raised, e.g., by assertions and/or responses made in and to at least one of the Requests for Reexamination and the Reissue Application Preliminary Amendment. Further, as discussed below, many of the rejections discussed below, with respect to the claims added in the Reissue application were the subject of the same or substantively identical rejections prosecuted in the original application and resolved in favor of applicant.

Applicant should have had an opportunity to respond to these issues in response to the prior Office Action making this Office Action subject to being a final rejection, or at least giving the applicant the opportunity to appeal with the record containing all of the Examiner's rejections and the applicant's assertions in response. Applicant's opportunity to appeal will now be delayed by some period of time, presumably in the range of times taken to issue the prior Office Action and the present Office Action in this "special" proceeding.

The Examiner has rejected claims 33, 60-61, 64-65 and 75 on the grounds that they contain new matter. Applicant respectfully traverses this rejection since no matter has been added to the application beyond the disclosure as originally filed, including the changes made in the Certificate of Correction. Therefore, new matter can not have been added to the application. The claims may be asserted, as the Examiner has also done, to not be supported by the specification as filed or not be enabled by the specification as filed. However, it is submitted that there is no proper new matter rejection without an amendment to the disclosure of the Specification that is new matter, and claims that are also then added which rely on that modified disclosure in the amended Specification.<sup>6</sup>

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<sup>6</sup> See 37 C.F.R. §1.121. Manner of making amendments in application.

...  
(f) No new matter. No amendment may *introduce new matter into the disclosure of an application*. (Emphasis added)  
...

Moreover, it is only the original claims that form part of the disclosure of the Specification. See M.P.E.P. §§ 608.01 (I) and 608.04. In addition, where there is new matter, it is required to be "canceled from the descriptive portion of the specification, and the claims affected are rejected under 35 U.S.C. 112, first

The Examiner is respectfully requested to withdraw the rejection of claims 33, 60-61, 64-65 and 75 based upon new matter.

In addition, this rejection was essentially already addressed in the original application when the Examiner rejected claims for reciting “reformatting the symbolic representation of the date *in the database* with the values ... .” The applicant amended the claim to the present language, “reformatting the symbolic representation of the date with the values ... to facilitate further processing of the dates.” In so doing the applicant asserted that the invention performed the recited step essentially “without modifying” or “without changing” the symbolic representations as contained in the existing date data fields in the database themselves, as these claims 33, 60-61, 64-65 and 70 recite.

In addition, the Examiner is misreading the claims. As recited, e.g., in claim 33, the process step calls for:

reformatting the symbolic representation of each symbolic representation of a date in the database, without changing any of the symbolic representations of a date in the database during the reformatting step, ...

or in claim 60 the process step calls for:

by windowing the symbolic representations of each of the respective dates as stored in the at least one date field of the database against a pivot year represented by one of the symbolic representations of the dates as stored in the at least one date field of the database, without modifying any of the symbolic representations of dates in the at least one date field of the database for purposes of such windowing and converting; ... .

The “symbolic representations of dates in the at least one field of the database” remain unchanged, as discussed in further detail below with regard to the enabling issue, as the Examiner in the original application noted and as was the subject of an amendment of the claims therein to clarify that point.

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paragraph.” M.P.E.P. §608.04. See 35 U.S.C. §§132 and 251. Since there has been here no amendment to the Descriptive portion of the Specification a new matter rejection is inapplicable.

Claims 1-76 have been rejected under 35 U.S.C. §112, second paragraph, as failing to particularly point out and distinctly claim the subject matter which the applicant regards as his invention. More particularly, the Examiner has taken the position that:

A. Claims 32 and 69 call for sorting dates "in the form of C1C2Y1Y2", while the specification only describes sorting with the format C1C2Y1Y2M1M2D1D2. (col.2, lines 15-21, col.3, lines 38-48). These two sorting formats are different from each other since the former excludes month and date data from the sort keys, resulting in a faster sort, with a potentially different resultant sequence, than the latter, in which, unlike the latter, the runs of data for any given century and year combination are not further sorted by month and day.

One of ordinary skill in the art at the time of the invention would have immediately appreciated that a CCYYMMDD sort is fundamentally different than, as contrasted with being a species for the genus of, CCYY sort because of these two dramatic differences in the sort results. Therefore, because a CCYY sort is not merely a broader genus for the species of CCYYMMDD, the disclosed CCYYMMDD sort does not implicitly satisfy the written description and enablement requirements under 35 USC 112, first paragraph. Therefore, the claimed sorting format is new matter since it is not disclosed in the original specification.

This appears to be a hodgepodge of §112 first paragraph rejections for lack of description, lack of enablement and new matter, rather than a failure to particularly point out and distinctly claim rejection under 35 U.S.C. §112 second paragraph as the Section heading 7ii seems to indicate as a basis for rejection. The propriety of a new matter rejection is discussed above. Applicant, therefore, will deal with this and the following discussed assertions of the Examiner as if the rejection is based upon lack of description or enablement.

As noted above, a claim is supported by the disclosure in an application where the disclosure, when filed, contains "sufficient information regarding the subject matter of the claims as to enable one skilled in the pertinent art to make and use the claimed

invention.” See M.P.E.P. §2164.01. The standard to meet is whether or not unreasonable experimentation would be required to enable one of ordinary skill in the art to make and use the claimed invention. See M.P.E.P. §2164.01, See *Mineral Separation v. Hyde*, 242 U.S. 261, 270 (1916); *In re Wands*, 858 F.2d 731, 737, 8 U.S.P.Q.2d 1400, 1404 (Fed. Cir. 1988). Certainly the disclosure of sorting in a C1C2Y1Y2M1M2D1D2 format would enable one of ordinary skill in the art to realize that sorting of just the C1C2Y1Y2 portion is possible, without undue experimentation. The Examiner himself points out only that the sorting may not be as good. But without undue experimentation the sorting based only on C1C2Y1Y2 is enabled.

As to written description, the Specification is reasonably clear in indicating that the applicant as of the filing date of the application leading to the Dickens patent was in possession of the invention, even if new terminology is used in the claims.

In addition the claimed sort is a broader genus. As indicated in the specification and as would have been well known in the art at the time of the filing of the Dickens patent, data may be stored in databases in other than YYMMDD and in which the Y2K ambiguity problem still exists, e.g., YYYYMMDD, where the MMM is a three letter designation of the month. For such date data formats, the present invention, as would be understood by those skilled in the art from the disclosure of the Dickens patent, with or without Exhibit A, is just as useful, along with the reformatting of the YY to CCYY. The claim, therefore, is a broader genus, which would cover the originally recited CCYYMMDD as well as, e.g., CCYYMMDD.

The Examiner has taken the position that:

Claims 33, 60-61, 64-65 and 70 call for reformatting to occur ‘without changing’ or ‘without modifying’ the symbolic date representations during the reformatting when the specification merely indicates that the YYMMDD date format is reformatted to appear in the form CCYYMMDD (col.3, lines 41-43). It is apparent that the original specification is devoid of any disclosure of how such reformatting is performed ‘without changing’ or ‘without modifying’ the symbolic date representation. In fact, the suggestion of reformatting without

changing representation is on its face a contradiction, for the reformat is to change representation. Therefore, the claimed limitation reformatting to occur 'without changing' or 'without modifying' is new matter because this subject matter was given neither a written description nor enabling description in the original disclosure.

There is quite an adequate disclosure in the original specification including the Certificate of Correction, from both a written description and an enabling perspective. The addition of the Exhibit A further supports the claim language. The "without modifying" and/or "without changing" recitations refer to the fact that the original database date entry as contained in, e.g., a legacy database itself is what is not modified. Clearly modification occurs according to the claims of the what is taken from or extracted from the date data field in, e.g., a legacy database, but this modification/reformatting according to the claims is done without also modifying/reformatting the originally stored date data *as it is in the existing legacy database date data field(s) themselves and remains so in such existing fields after the converting and reformatting* according to the claimed invention. This is adequately described in the written description and fully enabled, and was dealt with in the prosecution of the original application.

The Examiner has taken the position that:

Claims 16-30, 32, 34-67, 69-71, 75 and 76 call for processing relative to a 'pivot date' or 'pivot year' when such terms are nowhere defined or even mentioned in the original specification. Therefore, the claimed limitation 'pivot date' or 'pivot year' is new matter because this subject matter was given neither a written description nor enabling description in the original disclosure.

This term is well known in the art. By way of example, United States Patent No. 6,317,746, entitled SOFTWARE DATE AND TIME SERVICES, issued to Franklin, Jr., et al. on November 13, 2001, and United States Patent No. 6,003,028, entitled IMPLEMENTING EXTENDED NUMERIC RANGE WITHIN A TWO-DIGIT SOFTWARE REPRESENTATION, issued to Koenig on December 14, 1999 use the term in connection with windowing techniques utilizing, e.g., a ten decade window. The

Examiner has himself used the term throughout the prior and present Office Actions in rejecting claims with and without the term “pivot year” in the claim language. The term simply means as the Examiner himself has used it, the starting year for the window.

The Examiner has also taken the position that:

Claims 20-21, 62-65 and 71 call for ‘reformatting’ or ‘storing’ ‘separately’ from the symbolic representations in the database or from the database when the original specification merely suggests reformatting or sorting the date. However, the original specification does not disclose such ‘separate’ reformatting or storing. Therefore, the claimed limitation of ‘separate storing’ or ‘separate reformatting’ is new matter because this subject matter was given neither a written description nor enabling description in the original disclosure.

As discussed above with respect to claims 33, 60-61, 64-65 and 70 regarding the ‘without changing’ or ‘without modifying’ recitations, the Specification as originally filed along with the Certificate of Correction adequately disclosed and enables the recitations regarding “separate reformatting” and “separate storing.” The addition of Exhibit A further supports such recitations. Also this issue was raised and dealt with by the Examiner in the original prosecution of the Dickens patent.

The Examiner has taken the position that:

Claims 16-25, 31-33, 66-67 and 72 call for ‘collectively further processing’ when the specification makes no mention of such ‘collective’ further processing. Similarly, claims 36-43 call for ‘collectively sorting’ or ‘collectively manipulating’ when the original specification merely suggests sorting and manipulating. However, it does not mention such ‘collectively’ sorting or manipulating. Similarly, claims 34-61, 63 and 65 call for the step of ‘running a program collectively’ when the original specification, perhaps, only implicitly discloses the ‘running of the program’. However, such ‘collective’ running of the program, is not disclosed. Therefore, the claimed limitations of ‘collective processing, ‘collective sorting’, ‘collective manipulating’ or ‘collective running

are new matter because this subject matter was given neither a written description nor enabling description in the original disclosure.

The original disclosure and claims disclose a process whereby “each” or “all” of the dates stored in a database, e.g., a legacy database, wherein the stored format includes only two year date characters, are reformatted to contain four year date characters, followed by a process of, e.g., sorting or manipulating, based on all of the reformatted dates. The Exhibit A disclosure further supports this interpretation of the claims. The term “collectively” is not used in the original disclosure. However, applicant submits that the term serves to define over the art, e.g., Shaughnessy, where, e.g., one date from the database and one fixed date, or two dates from the database, are compared to each other, in the called subroutine, as opposed to all of the data from the database being manipulated, c.g., date sorted “collectively.”

The Examiner has taken the position that:

F. Claims 36-37, 40-41, 48-49, 51-59, and 69 call for the running of a program after a sorting operation has been performed. However, the original specification does not provide a written description of such running of a program subsequent the step of sorting. Similarly, claims 38, 39, 42-43 call for data manipulation before running of the program. No written description is provided for such data manipulation before running the program in the original specification. Therefore, such limitations are new matter because this subject matter was given neither a written description nor enabling description in the original disclosure.

As noted in the Specification of the Dickens patent:

Once the symbolic representations of the dates are reformatted according to the procedure set forth above, the date information may be sorted, numeral 38, or manipulated, numeral 40, together with the entries associated with the dates. Such manipulation may include handling of the data associated with the dates, storing the dates and associated information back in the data base, or other processes.

Applicant further submits that, at least Exhibit A shows a sort program run before another program, e.g., a print program.

The Examiner has taken the position that:

Claims 46-59 call for "repeating the step of converting at least a substantial portion" of the specified data. The original specification does not disclose the conversion of such substantial portion. Therefore, such limitation is new matter because this subject matter was given neither a written description nor enabling description in the original disclosure.

Applicant submits a person skilled in the art at the time of the filing of the application leading to the Dickens patent would have understood from the disclosure of the Dickens patent, with or without Exhibit A, that the storage of databases, particularly of extensive nature, may be contained in memory in variously segmented ways, e.g., on pages of extended memory, or organized by, e.g., data entry number. In addition it would have been understood that the process of the present invention, depending upon the particular application program being utilized and the particular kind of "manipulation" being done, may effectively run on a substantial portion of the database containing a substantial portion of all of the, e.g., date data fields, but not necessarily all of them. Applicant's claims should not be limited to only those instances where the recitation "each" or "all" as distinguishing over prior art, e.g., Shaughnessy, would require that each and every date data field is reformatted. In addition those skilled in the art would have appreciated that the database may contain several different date data fields associated with each particular data entry in the database and the sorting or other manipulation may only be concerned with one such field, and the conversion, therefore, only necessary in that instance and only as to that field. The program listing in Exhibit A is exemplary. For example, the "tools" database may have other date data fields besides "last\_inv.dat", e.g., purchase.dat or last\_maintenance.dat. The claims as originally filed would cover that situation and the added claims rejected above by the Examiner simply further clarify this fact.

The Examiner has taken the position that:

Claims 34-65 and 70-71 call for 'converting' symbolic representations 'by windowing the symbolic representation' when the specification merely discloses the selection of a 10 decade window. The verb 'windowing' appears nowhere in the specification, and its meaning is unclear. Therefore, such limitation is new matter because this subject matter was given neither a written description nor enabling description in the original disclosure.

Applicant submits that the disclosure of the Dickens patent, even without Exhibit A, and also with Exhibit A, fully describes the claim recitation "by windowing the symbolic representations of each of the respective dates as stored in the at least one date field of the database against a pivot year represented by one of the symbolic representations of the dates as stored in the at least one date field of the database ... ." Windowing is a well known and recognized term in the art, and as noted above the pivot year meaning the earliest date in the window is also a well known and recognized term of art. Even if the disclosure of the Dickens patent, with or without Exhibit A, does not specifically use the term "windowing" or the term "pivot year," one skilled in the art at the time of the filing of the Dickens patent would have understood the disclosure to contemplate and fully describe and enable the claim limitation.

The Examiner has taken the position that:

Claims 35, 37, 39, 41, 43, 45, 49, 51, 53, 55, 57 and 59 call for the step of 'opening the database prior to the step of converting' when the original specification makes no mention of opening the database. Therefore, such limitation is new matter because this subject matter was given neither a written description nor enabling description in the original disclosure.

Applicant asserts that the step of opening the database is at least inherent in the disclosure of the Dickens patent. One skilled in the art would have understood that to get at the date data field stored in the database in the Y2K ambiguous format in order to reformat it to not be Y2K ambiguous, the database would initially have to be opened up for such access. Exhibit A, in addition, specifically includes a program step opening the "tools" database.

The Examiner has taken the position that:

Claims 34-65, 70 and 71 call for the avoidance of an 'ambiguity' by reformatting or converting date representation. The original specification merely suggests that dates containing only two digit year representation, and without reformatting, may sort improperly. It does not mention or discuss any such claimed ambiguity.

Therefore, such limitation is new matter because this subject matter was given neither a written description nor enabling description in the original disclosure.

Applicant submits that there is a full description of and enablement of the claims recitation of a process for working on a "database utilizing symbolic representations of the dates stored in the at least one date field of the database, which are in a format that creates ambiguity between dates in each of a pair of adjacent centuries," and for the subsequent recitation of "converting each of the symbolic representations of dates stored in the at least one date field of the database to a symbolic representation of each of the respective dates that does not create the ambiguity ... ." The specification says that the problem being addressed is:

However, with the turn of the century at Jan. 1, 2000, the representation and utilization of dates becomes more complex. Using the numerical form above, Dec. 15, 2000 is represented as 12/15/00. If a numerical sort is performed on 12/15/93 and 12/15/00, the later date 12/15/00 sorts as the first-occurring date, an incorrect result.

Sets of dates spanning the turn of the century and associated with past, current, and future activities are now stored in many databases. When stored in the conventional formats discussed above, those dates will not readily be used and numerically sorted in chronological order.

In other words, because of the utilization of only two date data characters, the century of the date is ambiguous, and the process of the present invention will remove that ambiguity. That is, the date data format that is ambiguous in two characters is converted to one in four characters that is not ambiguous in a disclosed embodiment of the invention.

The Examiner has taken the position that:

Claims 1-15, 31, 33, 68, 72-74 call for the selection of a 'YAYB value for the first decade' of a window. There is no known meaning for the 'value of a decade' and the original specification is devoid of any description of what the 'value of a decade' is. Because this subject matter was in the original disclosure, such limitation is not new matter. However, it is rejected under the second paragraph of 35 USC 112 because the meaning of the claim phraseology is so devoid as to be wholly indefinite.

This rejection, unlike those above is based upon 35 U.S.C. §112, second paragraph. Applicant asserts that the specification and claims are perfectly clear on the meaning of the value of  $Y_A Y_B$ . It is the "first year of the 10-decade window." (Col 3, line 13). The full recitation of the claim to which the Examiner refers recites "selecting a 10-decade window with a  $Y_A Y_B$  value for the first decade of the window ... ." This is precisely the same as saying that the "value" of  $Y_A Y_B$  is the two digit year value of the first year in the 10-decade window. Contrary to the Examiner's suggestion, the claim does not call for setting the "value for a decade," even if in the context of the Specification and claim language there would be any doubt that "the value of a decade" is ten years. The claim clearly calls for a " $Y_A Y_B$  value" which is "for the first decade of the [10 decade] window ... ." It is also the same value as for the first year in the 10-decade window.

The Examiner has addressed certain arguments of applicant in the Examiner's **REMARKS**, as follows. The Examiner has taken the position that:

1. Applicant argues that Shaughnessy does not teach or suggest "*the step of selecting a 10-decade window  $Y_a Y_b$  no later than the earliest  $Y_1 Y_2$  year designator in the database.*" Applicant alleges that Shaughnessy only discloses the selection of a 10 decade window utilizing the date the system was installed. In response, the Examiner respectfully submits that Shaughnessy teaches the selection of a 10-decade window in figure 4 and the necessity of such a window

starting with a date no later than the earliest year in the database is taught in Hazama.

In response, applicant continues to assert that *Shaughnessy* does not disclose the claimed “step of selecting ...” *Shaughnessy* in the Specification and in the discussion specifically of Figure 4, and in Figure 4 itself, does not disclose “YaYb no later than the earliest Y1Y2 year designator in the database.” Specifically, depending upon the determination made in the block 36 of Figure 4 of *Shaughnessy*, the start date is set to either the “install date” or the “current date,” and then the “100 year cycle” is determined by a selected number of years from the start date of so-called “future dating.” This is explained by *Shaughnessy* as follows:

FIG. 4 illustrates the steps performed to determine the end of the 100 year cycle. When a system is modified according to the principles of the present invention, several parameters may be specified. The parameters may include the number of years of future dating required (default is 10), the type 2 format, CCYYMMDD, for the modified system install date (default is 19931231), and whether the end of the 100 year cycle is to be updated daily (0 indicates no update of the cycle, 1 indicates daily update of the cycle; default value is 1). The first step in determining the *end of the 100 year cycle* is therefore determining the update frequency for the cycle (box 36). If the cycle is to be updated daily, then the starting date is set to the current date (box 38), as determined above. Therefore, for this example the starting date would be 20000101 if the cycle is to be updated daily. Next, the *end of the 100 year cycle* is determined by adding the number of years of future dating required to the starting date (box 40).

Therefore, *Shaughnessy*, at best, describes the selection of a desired end of the 100 year cycle, which indeed may be updated daily. Regard for the earliest date in the database is not considered. Both the install date and the current date may result in a 100 year window that will incorrectly translate dates in the database into the 21<sup>st</sup> century by *Shaughnessy*'s disclosed method, or will at some point in time, if updated daily, begin to do so.

Shaughnessy ignores or, at best, teaches away from the claimed process step of "selecting a 10-decade window YaYb no later than the earliest YI Y2 year designator in the database."

The Examiner has further taken the position that:

2. Applicant argues that neither Shaughnessy nor Hazama teaches or suggests *"the step of determining a century designator C1 C2 for each symbolic representation of a date in the database, C1 C2 having ...."* Applicant alleges that the teaching of Shaughnessy or Hazama is to determine a century designator for at most two date representations being processed in a called subroutine at a given time. In response to the preceding argument, the Examiner respectfully submits that even under the allegation above, the Shaughnessy-Hazama combination would still disclose the claimed limitation as long as the references teach or suggest the determination of a century designator for each date in the database. As discussed in the office action, Shaughnessy determines a century designator for converting a current date from a six-digit to an eight digit format before the converted date is returned for use in a particular application. Shaughnessy determines the century value (19 or 20) by comparing the current date to the corresponding date portion when the system was installed with the modifications. Further, Shaughnessy suggests that the above approach can be used to determine a century designator for converting each six digit date in a database to corresponding eight digit dates. However, Shaughnessy refrains from such an approach, though capable of curing the year 2000 problem, on economic instead of technical grounds, since it might not be cost efficient. To the extent applicant is arguing that Shaughnessy fails to extrapolate the operation of date conversion from a single instance to an entire database, it is first noticed that one of ordinary skill in the art extrapolates single operations to batch processing of an entire database as a matter of automation efficiency, it is secondly pointed out that Shaughnessy teaches that its date conversion processing would be inserted for every occurrence of date processing, i.e. across the entire input gamut, col. 4 lines 27 to 33, and it thirdly noticed that

Shaughnessy even provides a specific example of checking the due dates in a database for being overdue col. 4 lines 38 to 43. Further, Hazama complements Shaughnessy by disclosing the use of a pivot date that is smaller than any other date in the database to compare each date in the database with the pivot date to thereby determine whether each two digit year in the database should be preceded by 19 or 20. Therefore, the Shaughnessy -Hazama combination does teach the above limitation, as claimed.

Applicant asserts that the Examiner's combination of Shaughnessy-Hazama does not "teach or suggest the determination of a century designator for each date in the database." In the first place, neither reference expressly teaches performing the claimed process step on "each" date representation in the database. They teach calling up a subroutine if an application program encounters an ambiguous date representation. The fact that *eventually* the application program *may* encounter all of the dates, does not mean that the combination of the references teach performing the specific sequence of process steps in the claims, first the reformatting of each of the dates and then sorting , manipulating, running a program, or the like, on them with respect to the *all* of the date representations amounting to "each of the date representation" as recited in the claims. In addition, even if the processes disclosed by Shaughnessy or Hazama or the combination of these references eventually could or might get to all date representations does not amount to a disclosure of the sequence of steps specifically recited in the claims regarding the "processing of symbolic representations of dates stored in a database," as to determining a century designator for each symbolic representation of a date in the database," followed by the step of reformatting the symbolic representation of the [each such] date ... to facilitate further processing of the dates." While the claim does not recite "each such" this is implicit from the rest of the claim language and from the disclosure.<sup>7</sup>

<sup>7</sup> Furthermore, as noted above, those skilled in the art would have understood from the disclosure of the Dickens patent, with or without Appendix A, that "each" while it is distinguished from the processes of Shaughnessy and Hazama does not necessarily mean each and every possible date data stored in the data base. While that is most often the case in the operation of the claimed process, e.g., if the database is organized using, e.g., pages or sections of memory, and in the context of a given application program, each may mean each on a given page or in a given section and the application program may be able to deal with the reformatted group of "each of the date data representations." on a page by page or section by section

As noted above, applicant also asserts that the Examiner is incorrect to assert that: Shaughnessy determines a century designator for converting a current date from a six-digit to an eight-digit format before the converted date is returned for use in a particular application.

Shaughnessy returns a "parameter," which itself is not information from which the reformatting of the date data used to generate the "parameter" can be determined.

Applicant further asserts that the Examiner is not exactly correct in framing applicant's assertion with regard to what Shaughnessy suggests as to whether:

the above approach can be used to determine a century designator for converting each six digit date in a database to corresponding eight digit dates. However, Shaughnessy refrains from such an approach, though capable of curing the year 2000 problem, on economic instead of technical grounds, since it might not be cost efficient.

Shaughnessy's discussion comports with applicants, i.e., that to modify the existing legacy database is highly impractical, if not impossible. That is, as noted above, and in applicant's specification one does not want to change the legacy data base itself, its organization, data formats and sizes, etc. within date data fields as they exist within the legacy database itself and with respects to links, etc., employed in the data base, which might also have to be changed if an existing date data field is modified, e.g., enlarged to an entirely new date data field to accommodate, e.g., the expanded year date data containing the century designator. Shaughnessy proposes a solution, and Hazama proposes a solution, but they are not the solution of the claimed invention.

Applicant asserts that the Examiner's suggestion of "extrapolation," of Shaughnessy's approach into the claimed invention is hindsight reconstruction of the process disclosed in Shaughnessy and improper under the case law noted above. It is

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basis, or may require reformatting of every one of the dates in every date data field having only two character date data information before continuing on the do the sorting of manipulating or otherwise rone a program, after the process of the present invention has reformatted each of the date representations to facilitate further processing. Nevertheless, whether done on a page by page, sections by section, etc. basis or done throughout the entire database before "further processing," this method is distinguished from either Shaughnessy of Hazama or the combination of these references.

incorrect also for the Examiner to assert that this "extrapolation," amounts to simply multiplying the process steps proposed by Shaughnessy to cover the entire database:

To the extent applicant is arguing that Shaughnessy fails to extrapolate the operation of date conversion from a single instance to an entire database, it is first noticed that one of ordinary skill in the art extrapolates single operations to batch processing of an entire database as a matter of automation efficiency ... .

To do so does not result in the claimed invention, since, at least, Shaughnessy does two by two comparisons (either of a date from the database and a fixed date or two dates from the database) and returns a "parameter" indicative of the results of that single two by two comparison. Even if multiplied over and over to go through the entire data base, it is still not the claimed process.

The Examiner is also incorrect to assert that:

Shaughnessy teaches that its date conversion processing would be inserted for every occurrence of date processing, i.e. across the entire input gamut, col. 4 lines 27 to 33 ... ,

or, even if correct, this is not the claimed invention, because Shaughnessy's "data conversion processing," as noted above, is not according to the claimed invention.

The specific portion of Shaughnessy referenced (and a continuing portion) discuss one embodiment of a process according to Shaughnessy's method in which:

In accordance with the present invention, the current date operation routines nested in the body of the application program would be replaced with a call to one of a plurality of subroutines stored externally from the existing application program, as opposed to the date operation routine being reprogrammed to perform the date operation in a new format. The subroutines will be able to accommodate the date format currently employed by the application program, thus making it unnecessary to convert all of the date fields in files containing data used by the application program over to the new date format. *For example, if an application program for a bank performed a date comparison to determine when loan payments were overdue, the point in the source code which previously performed*

*the comparison may have program statements which performed the following functions:*

- 1. Compare date next payment is due to today's date;*
- 2. If the date next payment is due is greater than today's date, indicate that the account is OK.*

*If the system which ran the above application program were modified in accordance with the principles of the present invention, then the program statements which performed the above functions would be modified to include program statements which did the following:*

- 1. Call the subroutine which performs the date comparison passing today's date, the date next payment is due, and a three byte parameter, the first byte of which identifies the format of today's date, the second byte of which identifies the format of the date next payment is due, and the third byte of which is left available for a return code indicative of a result of the comparison;*
- 2. If the result received from the subroutine [indicated by the returned parameter] indicates that the date next payment is due is greater than today's date, indicate that the account is OK.*

This is simply a very different process that the one recited in the claims, as noted above, even if such a process is performed over and over again to compare, e.g., sets of due dates to the current date as stored in the database, and as provided to the subroutine, until all of the entries in the database are examined. Therefore, while Shaughnessy may "provide[] a specific example of checking the due dates in a database for being overdue col. 4 lines 38 to 43," Shaughnessy does so by other than the claimed invention.

The Examiner has also taken the position that:

3. Applicant argues that neither Shaughnessy nor Hazama teaches or suggests the step of *'reformatting the symbolic representation of the date with the values C1C2, Y1Y2, M1M2, and D1D2 to facilitate further processing of the dates.'*

Applicant alleges that the teaching of Shaughnessy or Hazama is to reformat two dates at a time in the called [sic] result of the processing of the two reformatted date data entries, and not to facilitate further processing of the dates by reformatting the symbolic representations of the dates (claim 4). In response to the preceding argument, the examiner respectfully submits that the Shaughnessy-Hazama combination does disclose the reformatting of the dates in the C1C2Y1Y2M1M2D1D2 format to facilitate the further processing of these dates. Shaughnessy's conversion of the current date of an operating system from a six digit format to an eight digit format each time said date is going to be used in application. Such reformatted dates are further utilized by returning one date field with the converted date to the subroutine and by returning a parameter to the application program for use in further operations. As explained above, Shaughnessy suggests that such approach can be extended to reformat dates already stored in database such that they can be used for further processing. Therefore, the Shaughnessy-Hazama combination does teach the above limitation, as claimed.

Applicant in response repeats the above noted assertion of differences between the approach of Shaughnessy and/or Hazama and the claimed inventions dealing with "all" and "each" in the claimed process sequence resulting in the "facilitat[ion] of the further processing of the dates." In addition applicant notes that Shaughnessy does not: return[] one date field with the converted date to the subroutine and by returning a parameter to the application program for use in further operations. and also does not: suggest[] that such approach can be extended to reformat dates already stored in database such that they can be used for further processing,

or, at least does not suggest doing so in the context of “facilitating the further processing of [each of] the dates ... .” Shaughnessy sends a date field to the subroutine and returns a parameter that is lacking in any indication of the date itself, whether as originally stored in the database or as converted by Shaughnessy within the subroutine for purposes of the functioning of the subroutine to create and return this parameter.

The Examiner has taken the position that:

4. Applicant argues that neither Shaughnessy nor Hazama teaches or suggests the step of ‘*sorting the symbolic representations of the dates.*’ Applicant alleges that Shaughnessy or Hazama only teaches the comparison of two dates to each other in the called subroutine and returning to the program an indication of the result of the comparison. In response to the preceding argument, the examiner respectfully submits that it was conceded that Shaughnessy and Hazama do not teach the step of sorting the symbolic representations of the dates. However, the Examiner relied upon the Booth reference for such teaching, as detailed in paragraph 10 et seq of the office action. It is noted that Applicant fails to address and rebut the rejection of claim 4 over Shaughnessy, Hazama and Booth. Therefore, the issue is considered to be waived and the rejection of claim 4 is sustained. **See In re Berger, Slip Op 01-1129.**

Applicant in response repeats the above noted assertion of differences between the approach of Shaughnessy and/or Hazama and the claimed invention dealing with the claimed sorting recitation and also the above discussion of Booth, including the discussion of Booth from the applicant’s response to the prior Office Action, and in regard to the Examiner’s General Statements, particularly in regard to Booth not sorting the recited “symbolic representations of dates” but sorting date data in integer form.

The Examiner’s reliance on *In re Berger*, 279 F.3d 975, 980, 984, 61 U.S.P.Q.2d 1523 (Fed. Cir. 2002) is entirely out of place. In *Berger* the case was on appeal to the Federal Circuit from a decision of the U.S.P.T.O. Board of Patent Appeals and Interferences, and the applicant had made arguments in two amendments after final rejection that the examiner had refused to enter. The Federal Circuit simply held the

argument was waived by not having been addressed before the Board or in the applicant's appeal brief to the Federal Circuit, and also that the argument that the examiner was in error in failing to enter the amendments in question was not subject to appeal. Indeed even in a case like *Berger*, the specific arguments in questions are not "waived," provided prosecution was reopened after the appeal of the final rejection.

The appropriate procedure under the M.P.E.P., if the Examiner was of the belief that the response of the applicant to the prior Office Action was not *bona fide*, would have been to refuse to enter the amendment and to have issued an Advisory Action informing applicant of the refusal and the deficiencies and inviting further response within a set time or the application would go abandoned, invoking the practice after abandonment. See M.P.E.P. §710. See 35 C.F.R. §1.135. This rule also allows the Examiner to accept a non-fully responsive amendment as a *bona fide* response and deal with the omitted arguments in the next Office Action. See M.P.E.P. §710. See 35 C.F.R. §1.135. Specifically, the M.P.E.P. states:

The examiner may repeat and make final the rejection, objection, or requirement that was the subject of the omission. Thus, a reply to a non-final Office action that is *bona fide* but includes an omission may be treated by: (A) issuing an Office action that does not treat the reply on its merits but requires the applicant to supply the omission to avoid abandonment; or (B) issuing an Office action that does treat the reply on its merits (and which can also require the applicant to supply the omission to avoid abandonment).

There is no provision in the M.P.E.P. for the waiver that the Examiner asserts, at the stage of the prosecution at which the present case is, nor does one come from the decision in *Berger*.

Applicant further submits that there is ample discussion of the meaningfulness of the addition of the Booth reference in combination with the other references as to other claims for the Examiner to have been able to address the response to the rejections of claim 4 on the merits, even if discussion of Booth as to that claim was inadvertently omitted. The Examiner has in fact fully addressed the pertinent issues.

The Examiner has also taken the position that:

5. Applicant argues that neither Shaughnessy or Hazama teaches or suggests the step of *'reformatting each symbolic representation of a date in a format CIC2YJY2M1M2DID2 (claim 5), nor sorting the symbolic representations of dates in numerical order sort (claim 6), nor storing the symbolic representation of dates and their associated information back into the database (claim 9); nor manipulating information in the database having reformatted date information therein (claim 10).'*' In response to the preceding argument, the examiner respectfully submits that with regards to claim 5, Shaughnessy discloses the limitations as discussed above in paragraph 3 of the remarks. Regarding claim 6, Shaughnessy, Hazama and Booth disclose the cited limitation, see discussion above in paragraph 4 of remarks. Regarding the limitation of claim 9, Shaughnessy discloses the step of storing the symbolic representation of dates and their associated information back into the database, as discussed in the office action. Shaughnessy teaches the storing in the database of current date after it has been converted from the six digit format to the eight digit format. Further, Shaughnessy suggests that such an approach can be extended to dates in a database. Consequently, Shaughnessy discloses the claimed limitation of claim 9. Regarding claim 10, Shaughnessy and Hazama disclose the cited limitations as discussed above in paragraphs 3 and 4 of the remarks.

Applicant in response refers the Examiner to the above discussion of the rejections of the claim referenced and also to the applicant's assertions in response to the prior Office Action, and in the present Response regarding the rejections of the noted claims, as well as to the above discussion of the Examiner's General Statements. In addition applicant asserts that Shaughnessy does not disclose:

the step of storing the symbolic representation of dates and their associated information back into the database, as discussed in the office action. Shaughnessy teaches the storing in the database of current date after it has been converted from the six digit format to the eight digit format.

Shaughnessy suggests that modifying the date data field in a legacy database and storing modified dates from an existing legacy database in such a modified date data field is possible but not practical. Such a modification is an undesirable alternative to the present invention as well, as noted above. The solution of the present invention is significantly different from the one suggested in Shaughnessy.

The Examiner has taken the position that:

6. Applicant argues that neither Shaughnessy nor Hazama teaches or suggests the step of "converting preexisting date information [within a database] having a different format into the format wherein M1M2 is the numerical month designator, D1D2 is the numerical day designator and Y1Y2 is the numerical year designator (claim 7). In response to the preceding argument, the Examiner respectfully submits that Shaughnessy does disclose the cited limitation. In particular, Shaughnessy discloses the conversion of a current date from a six digit format (YYMMDD) to an eight digit format (CCYYMMDD). Shaughnessy also suggests that the preceding approach could be extended to convert dates already stored in a database.

Applicant in response refers the Examiner to the above discussion of the rejections of the claim referenced and also to the applicant's assertions in response to the prior Office Action, as well as to the above discussion of the Examiner General Statements.

The Examiner has also taken the position that:

7. Applicant argues that neither Shaughnessy nor Hazama teaches or suggests the step of selecting YaYb such that Yb is 0 (zero) (claim 8). In response to the preceding argument, the examiner respectfully submits that it was conceded that Shaughnessy and Hazama do not teach the step of selecting YaYb such that Yb is zero. However, the Examiner relied upon the Booth reference for such teaching, as detailed in paragraph xxx of the office action. It is noted that Applicant fails to address and rebut the rejection of claim 8 over Shaughnessy, Hazama and Booth.

Therefore, the issue is considered to be waived and the rejection of claim 8 is sustained. **See In re Berger, Slip Op 01-1129.**

Applicant in response refers the Examiner to the above discussion of the rejections of the claim referenced and also to the applicant's assertions in response to the prior Office Action, as well as to the above discussion of the Examiner's General Statements. In addition applicant repeats the argument above concerning the applicability of *Berger*.

The Examiner has taken the position that:

8. Applicant argues that Booth does not teach or suggest the step of '*selecting a 10-decade window YaYb no later than the earliest Y1 Y2 year designator in the database.*' Applicant alleges that Booth merely selects, e.g. 'nyear' in order to 'handle dates that use only two digits for the year [w]hen a two-digit year is entered into a date [by comparing] its year digits... with the year digits of the epoch setting to determine the century ...(Id. at 941).' Therefore, Applicant contends that Booth does not disclose the earliest Y1Y2 year designator in the database. In response to the preceding arguments, the Examiner respectfully submits that Booth was not relied upon for the teachings of the cited limitations. Rather Hazama was relied upon for such teaching. Therefore, Applicant's argument is not relevant.

Applicant appreciates the concession by the Examiner of the lack of disclosure in Booth of the claimed recitation. Applicant was merely trying to complete the distinction of the claims, particularly as issued in the patent originally, over all of the references.

The Examiner has taken the position that:

9. Applicant argues that Booth does not teach or suggest the step of '*the step of determining a century designator C1 C2 for each symbolic representation of a date in the database having ....*' Applicant alleges that: 'there is no need to determine a century designator for each symbolic representation of a date in Booth's database since each is already stored with the century designator included in the date datum so stored in integer format. In

addition, the teaching of Booth is to determine a century designator on an individual date datum basis for date data entry, date display, incrementally determining a date based upon a given initial date datum, etc. This calling of certain functions disclosed by Booth to, for example, display a date, or compare two dates, or increment a date from a starting date, are virtually identical to the pertinent disclosure in Shaughnessy.'

In response to the preceding arguments, the Examiner respectfully submits that Booth was not relied upon for the teachings of the cited limitations. Rather Shaughnessy was relied upon for such teaching. Therefore, Applicant's argument is not relevant.

Applicant appreciates the concession by the Examiner of the lack of disclosure in Booth of the claimed recitation. Applicant was merely trying to complete the distinction of the claims, particularly as issued in the patent originally, over all of the references.

The Examiner has taken the position that:

10. Applicant argues that Booth does not teach or suggest the step of 'reformatting *the symbolic representations of the date with the values C1C2YJ Y2MIM2 and DID2 to facilitate further processing of the date.*' Applicant alleges that:

'Booth, like Ohms, does not need to do the recited reformatting, since the dates stored in the database in their original format already contain all the information needed to determine the four digit designation of the date, including the century of the particular date datum. The process of the claimed invention is not needed for dates stored with the century designator already known from what is stored and the Y2k ambiguity not present. Furthermore, the teaching of Booth, like Shaughnessy, is to reformat one or two dates at a time in a called Clipper date functionality and the return to the program from the called subroutine with information resulting from the performance of the programming functionality, e.g., an input to a display, a result of a comparison, a newly calculated date, etc. Booth does not teach facilitating 'further processing of the dates' by 'reformatting

the symbolic representation of the date' 'for each symbolic representation of a date in the database.'

In response to the preceding arguments, the Examiner respectfully submits that Booth was not relied upon for the teachings of the cited limitations. Rather Shaughnessy was relied upon for such teaching. Therefore, Applicant's arguments are not relevant.

Applicant appreciates the concession by the Examiner of the lack of disclosure in Booth of the claimed recitation. Applicant was merely trying to complete the distinction of the claims, particularly as issued in the patent originally, over all of the references.

The Examiner has taken the position that:

11. Applicant argues that Booth does not teach or suggest the step of '*sorting the symbolic representations of dates,*' as recited in claim 4. Applicant contends that: 'Whatever sorting Booth teaches does not need to first reformat the date data, since the integer format can be and is sorted in its initial format. The method of the claimed invention, including the reformatting steps is simply not relevant to a database that stores date data as Clipper does, in integer format, as described in Booth.'

In response to the preceding arguments, the Examiner respectfully submits that Applicant's reading of Booth is inaccurate. Booth discloses the sorting and indexing of dates stored in a database after said dates have been converted to an eight digit format (YYYYMMDD). See. pages 845, 945. Therefore, the rejection of claim 4 is proper.

In response applicant repeats applicant's assertions above and also in applicant's response to the prior Office Action regarding applicable claim rejections and also in regard to the Examiner's General Statements.

The Examiner has taken the position that:

12. Applicant argues that Booth does not teach or suggest the step of '*reformatting each symbolic representation of a date into a format C1 C2Y1 Y2M1M2D1D2*' as recited in claim 5. Applicant further argues that Booth does not

disclose the step of *'sorting the symbolic representations of dates using a numerical order sort'* as recited in claim 6. Additionally, Applicant argues that Booth does not disclose the step of *'storing the symbolic representation of dates and their associated information back into the database'* as recited in claim 9 nor the step of *'manipulating information in the database having the reformatted date information therein,'* as recited in claim 10. In response to the preceding arguments, the Examiner respectfully submits that Booth was not relied upon for the teachings of the upon for such teachings. Further, regarding claim 6, it was previously discussed above that Booth teaches such limitation at pages 845 and 845. Therefore, the rejection of claims 5, 6, 9 and 10 is proper.

Applicant appreciates the concession by the Examiner of the lack of disclosure in Booth of the indicated claim recitations. Applicant was merely trying to complete the distinction of the claims, particularly as issued in the patent originally, over all of the references.

In response also applicant repeats applicant's assertions above and also in applicant's response to the prior Office Action regarding applicable claim rejections and also in regard to the Examiner's General Statements, e.g., regarding the applicability of Booth the claims 6. Applicant does not understand why the Examiner continues to rely on the rejections of claims 5, 9 and 10, over Booth and understands the Examiner to mean that the rejections of those claims are proper over the references without Booth, to which applicant repeats applicant's assertions as noted above.

The Examiner has taken the position that:

13. Applicant argues that Booth does not teach or suggest the step of *'converting pre-existing date information having a different format into the format wherein MIM2 is the numerical month designator, DID2 is the numerical day designator and YI Y2 is the numerical year designator,'* as recited in claim 7. Applicant alleges that the fact that Booth teaches converting date format into the 'recited format' does not teach it as part of the process of the claimed invention. In response to the preceding arguments, the Examiner respectfully submits that

Booth was not relied upon for such teaching. Rather, Shaughnessy was relied upon the limitations of claim 7. Consequently, Applicant's arguments are not relevant.

Applicant appreciates the concession by the Examiner of the lack of disclosure in Booth of the indicated claim recitations. Applicant was merely trying to complete the distinction of the claims, particularly as issued in the patent originally, over all of the references.

The Examiner has taken the position that:

14. Applicant argues that Booth does not teach or suggest the step of '*selecting YaYb such that Yb is 0 (zero),*' as recited in claim 8. Applicant alleges that even though SET EPOCH can and does use pivot years ending in 0, it is not a process according to the claimed invention. In response to the preceding arguments, the Examiner respectfully submits that Booth does disclose Yb to be zero by selecting YaYb to be equal to 90. See page 942. It is noted that Applicant's arguments that Booth's teaching is not a process according to the claimed inventions fails to comply with 37 CFR 1.111 (b) because they amount to a general allegation that the claim define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

Applicant simply alleges that the cited limitations are not taught by Shaughnessy without actually explaining how these limitations are distinguishable from the corresponding portions in Booth on which the Examiner relied to establish the prima facie case. See page ... of the office action. Consequently, Applicant has failed to successfully rebut the rejection of claim 8. Generally, Applicant bears the burden of explaining why the evidence on which the Examiner relies is insufficient to establish a prima facie case or demonstrating that Applicant has provided evidence which rebuts the prima facie case. See *In re Rouffet*, 149 F.3d 1350, 1355 47 USPQ2d 1453, 1455 (Fed. Cir. 1998). Furthermore, Shaughnessy's process would select a Yb value of 0 for one year out of every 10 when operated with daily update, col. 6. lines 4 to 45.

In response applicant repeats applicant's assertions above and also in applicant's response to the prior Office Action regarding applicable claim rejection and also in regard to the Examiner's General Statements, e.g., regarding the applicability of Booth to claim 8.

In addition applicant asserts as follows in response. The fact that Booth may disclose the setting of a pivot year with a zero in the second place is not the claimed setting of the claimed  $Y_A Y_B$  with a zero in the  $Y_B$ , because in the steps of the claimed process  $Y_A Y_B$  is selected as earlier than the earliest date in the database, so that the claimed  $Y_A Y_B$  is not just any pivot date but one selected as recited in the claim. As selected by Booth there is no disclosure of any regard being taken to the earliest date in the database. The same applies to the Examiner's reference to Shaughnessy, even if the fact Shaughnessy might sometimes unintentionally select a pivot year with a zero in the second place, depending upon the installation date or the updated installation date, or the like, is a disclosure of affirmatively carrying out the claimed step in the claimed process to so select the  $Y_A Y_B$ , which it is not.

The Examiner has taken the position that:

15. Applicant argues that Ohms does not teach or suggest the step of *'Providing a database with symbolic representations of dates stored therein according to a format wherein M1M2 is the numerical month designator, D1D2 is the numerical day designator and Y1 Y2 is the numerical year designator; all of the symbolic representations falling within a 10-decade period of time, as recited in claim 1.'*

Applicant alleges that Ohms does not disclose the above limitations since Ohms teaches providing a database with the dates in a Lilian format. In response to the preceding arguments, the Examiner respectfully submits that Applicant's reading of Ohms is incorrect. Ohms teachings are not limited to dates in Lilian format. As discussed in the office action, Ohms discloses the storing of dates in a database in Gregorian format, wherein said dates are converted from a six digit format (YYMMDD) to an eight digit format (YYYYMMDD). See page 247, table 1.

Ohms further teaches that the dates stored in the database do fall within a ten decade period. See page 249. Consequently, the rejection is proper.

In response also applicant repeats applicant's assertions above and also in applicant's response to the prior Office Action regarding applicable claim rejection and also in regard to the Examiner's General Statements, e.g., regarding the applicability of Ohms to claim 1.

In addition, applicant responds as follows. As noted Ohms does not disclose storing dates in the database in Gregorian format, and certainly does not disclose storing in Gregorian form any of the dates that are windowed for date data entry convenience. The entire point of Ohms is to avoid such a format in the storing of the date data by employing a Lilian format.

The Examiner has taken the position that:

16. Applicant argues that Ohms does not teach or suggest the step of 'selecting a YaYb value for the first decade of the window, YaYb being no later than the earliest Y1Y2 year designator in the database.' Applicant contends that, at best, Ohms teaches or suggests a YaYb based upon dates that are currently being input into the database. In response to the preceding arguments, the Examiner respectfully submits that it was conceded in the office action that Ohms does not detail the cited limitation. However, Hazama was relied upon to complement Ohms for its teaching of a pivot year date that is smaller than the smallest two digit year date in the database. Therefore, the claimed limitation is taught by the Ohms-Hazama combination. Consequently, the rejection is proper.

Applicant appreciates the concession by the Examiner of the lack of disclosure in Ohms of the indicated claim recitations. Applicant was merely trying to complete the distinction of the claims, particularly as issued in the patent originally, over all of the references. In further response also applicant repeats applicant's assertions above and also in applicant's response to the prior Office Action regarding applicable claim rejections and also in regard to the Examiner's General Statements, e.g., regarding the applicability of the combination of Ohms and Hazama to claim 1.

The Examiner has taken the position that:

17. Applicant argues that Ohms does not teach or suggest the step of ‘determining a century designator C1 C2 for each symbolic representation of a date in the database, C1 C2 having ... .’ Applicant contends that Ohm teaches entering date data into the database to be converted into Lilian format for storage and manipulation within the database. Applicant further alleges that since the conversion in Lilian format does not require the determination of a century designator for data in the database, then Ohms cannot teach such limitation. In response to the preceding arguments, the Examiner respectfully submits that Applicant misread Ohms' teachings. As pointed out above, Ohms' teachings are not limited to conversion in Lilian format. Ohms also discloses the conversion of dates stored in a database in Gregorian format from a six digit format to an eight digit format to include the century designator. See page 247, table I and page 248.

In response applicant asserts as above regarding the disclosure of Ohms, including applicant's response to the prior Office Action and to the Examiner's General Statements. Applicant further submits that even if Ohms discloses “conversion” Ohms does not do so as to dates “stored in the database,” since they are in need of no such conversion, and does not do so for purposes of “facilitating further processing of the dates.”

The examiner has taken the position that:

18. Applicant argues that Ohms does not teach or suggest the step of ‘reformatting the symbolic representation of the date with the values C 1 C2, Y 1 Y2, M 1 M2, and D 1 D2 to facilitate the further processing of the dates.’ Applicant contends that Ohms does not disclose such limitation since it teaches reformatting into Lilian format and thereafter processing the date data in the database utilizing the Lilian format. In response to the preceding arguments, the Examiner respectfully submits that, as pointed out above in the remarks, Ohms' teachings are not limited to reformatting in Lilian format. Ohms discloses the reformatting of a short Gregorian date having six digit into a Gregorian date having eight digits. See page 247, table 1.

In response applicant asserts as above regarding the disclosure of Ohms, including applicant's response to the prior Office Action and to the Examiner's General Statements. Applicant further submits that even if Ohms performs "reformatting" it is not of the "dates stored in the database" and it is not for the purpose of "further facilitating processing of the dates," since Ohms facilitates processing of the dates by storing them in the database in Lilian format.

The Examiner has taken the position that:

19. Applicant argues that Ohms does not teach or suggest the steps of sorting the symbolic representations of dates (claim 4); or reformatting each symbolic representation of a date into the format C1C2Y1Y2M1M2D1D2 (claim 5) or sorting the symbolic representations of dates and their associated (claim 6) or storing the symbolic representation of dates and their associated information back into the database (claim 9) or after the step of reformatting, manipulating information in the database having the reformatted date information therein (claim 10) or converting pre-existing date information having a different format into the format wherein M1M2 is the numerical month designator, D1D2 is the numerical day designator and Y1Y2 is the numerical year designator or selecting YaYb such that Yb is 0 (zero) (claim 8). In response to the preceding arguments, the examiner respectfully submits that it was conceded in the office action that Ohms does not teach the limitations of claims 4, 6, and 8. However, Booth was relied upon to complement Ohms' teachings in order to reject the cited claims.

Regarding claims 5, 9 and 10, it was pointed out in the office action that Ohms teaches the reformatting of short order Gregorian dates having six digits into Gregorian dates having eight digits to thereby store the converted dates in the database for further use and processing. The limitations of these claims were fully addressed in the office action. It is noted, however, that Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

Applicant simply alleges that the cited limitations are not taught by Ohms without actually explaining how these limitations are distinguishable from the corresponding portions in Ohms on which the Examiner relied to establish the prima facie case. See page ... of the office action. Consequently, Applicant has failed to successfully rebut the rejection of claims 4-10 as laid out in paragraph ... Generally, Applicant bears the burden of explaining why the evidence on which the Examiner relies is insufficient to establish a prima facie case or demonstrating that Applicant has provided evidence which rebuts the prima facie case. See *In re Rouffet*, 149 F.3d 1350, 1355 47 USPQ2d 1453, 1455 (Fed. Cir. 1998). [Respond]

In response applicant asserts as above regarding the disclosure of Ohms, including applicant's response to the prior Office Action and to the Examiner's General Statements. Applicant further submits that Ohms' does not reformat date data having six characters into "Gregorian dates having eight digits *to thereby store the converted dates in the database for further use and processing ...*" Ohms stores dates in the database in Lilian format for further use and data processing. At least this element of the claims is missing from the combination relied upon by the examiner to find *prima facie* obviousness. In addition, as noted above, Ohms does not reformat dates "stored in the database," from the recited YY format to the recited CCYY format, and does not do any such reformatting for purposes of "facilitating further processing of the dates."

For the above stated reasons applicant respectfully requests that the Examiner withdraw the above rejections based on 35 U.S.C. §112, first paragraph or second paragraph and allow the claims.

#### Summary

In summary the applicant asserts that the present invention as described and claimed in the original application, as amended, relates to, e.g., considering the language of issued claim 11, that calls for "[a] method of processing dates in a database, comprising the steps of providing a database with dates stored therein according to a format wherein M.sub.1 M.sub.2 is the numerical month designator, D.sub.1 D.sub.2 is the numerical day designator, and Y.sub.1 Y.sub.2 is the numerical year designator, all of dates falling

within a 10-decade period of time which includes the decade beginning in the year 2000; selecting a 10-decade window with a Y.sub.A Y.sub.B value for the first decade of the window, Y.sub.A Y.sub.B being no later than the earliest Y.sub.1 Y.sub.2 year designator in the database; determining a century designator C.sub.1 C.sub.2 for each date in the database, C.sub.1 C.sub.2 having a first value if Y.sub.1 Y.sub.2 is less than Y.sub.A Y.sub.B and having a second value if Y.sub.1 Y.sub.2 is equal to or greater than Y.sub.A Y.sub.B ; reformatting each date in the form C.sub.1 C.sub.2 Y.sub.1 Y.sub.2 M.sub.1 M.sub.2 D.sub.1 D.sub.2 to facilitate further processing of the dates; and sorting the dates in the form C.sub.1 C.sub.2 Y.sub.1 Y.sub.2 M.sub.1 M.sub.2 D.sub.1 D.sub.2.”

This process is done on all of the dates in the database prior to the step of, e.g., sorting (or other manipulation), it is done without modification of the original date data in the existing date data fields of the existing legacy database itself, outside of the existing date data field(s) in question in the original legacy database itself, and for the purpose of facilitating the further processing of all of the dates and all of the data associated with the dates, e.g., by sorting, and this manipulation is done collectively on all of the dates extracted from the legacy database and converted according to the claimed invention collectively. These features of the claimed process are even more fully and clearly set forth in the claims added in the Reissue application.

This invention is clearly and concisely described in the original application as filed, including the claims, and was determined to have done so expressly by the original Examiner in the prosecution of the original application. This is so considering the specification as originally filed, with or without the filed Exhibit A, and even more so in considering Exhibit A.

Such a process is not disclosed in Shaughnessy, Hazama and Booth, or any of them and the substitution of Ohms for Shaughnessy as the bases for the rejections does not result in this process either.

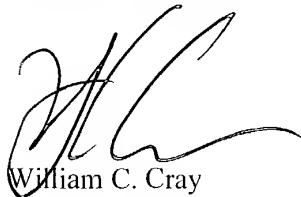
#### Conclusion

For these reasons, the Examiner is respectfully requested to withdraw the rejections of claims 1-76 and allow claims 1-76.

Request for Extension of Time

Applicant hereby requests a two -month extension of time for the filing of the present Response. A check in the amount of \$400.00 accompanies this Response for the extension of time.

Respectfully submitted,



William C. Cray

Reg.No. 27,627

714-836-0200

**Appendix 1**  
**Response to Office action Dated July 22, 2002**  
**in Merged Proceedings**  
**09/512,592, 90/005, 592, 90,005,628 and 90/005,727**

**Abstract**

Dates stored in symbolic form in a database are reformatted to permit easy manipulation and sorting of date-related information. Each date in  $M_1M_2$ ,  $D_1D_2$ , and  $Y_1Y_2$  format is converted to  $C_1C_2$ ,  $Y_1Y_2$ ,  $M_1M_2$ , and  $D_1D_2$  format. To accomplish the conversion, a 10-decade window starting on  $Y_A Y_B$  is defined that encompasses all dates in the database. The value of  $C_1C_2$  is determined by the relative values of  $Y_1Y_2$  and  $Y_A Y_B$ . The reformatted date information is particularly useful when the reformatting is in  $C_1C_2Y_1Y_2M_1M_2D_1D_2$  format, because sorting by date is accomplished using a pure numerical-value sort.

09/512,592, 90/005, 592, 90,005,628 and 90/005,727

**Appendix 2**  
**Response to Office action Dated June 20, 2002**  
**in Merged Proceedings**  
**09/512,592, 90/005, 592, 90,005,628 and 90/005,727**

---

**Abstract**

C1  
Dates stored in symbolic form in a database are reformatted to permit easy manipulation and sorting of date-related information. Each date in  $M_1M_2$ ,  $D_1D_2$ , and  $Y_1Y_2$  format is converted to  $C_1C_2$ ,  $Y_1Y_2$ ,  $M_1M_2$ , and  $D_1D_2$  format. To accomplish the conversion, a 10-decade window starting on  $Y_A Y_B$  is defined that encompasses all dates in the database. The value of  $C_1C_2$  is determined by the relative values of  $Y_1Y_2$  and  $Y_A Y_B$ . The reformatted date information is particularly useful when the reformatting is in  $C_1C_2Y_1Y_2M_1M_2D_1D_2$  format, because sorting by date is accomplished using a pure numerical-value sort.

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09/512,592, 90/005, 592, 90,005,628 and 90/005,727

**Appendix 3**  
**Response to Office action Dated July 22, 2002**  
**in Merged Proceedings**  
**09/512,592, 90/005, 592, 90,005,628 and 90/005,727**

```

!           - -Century Conversion - -
!           Bruce Dickens           Apr 04, 1996
!
!
10  open structure toos:name 'otms_src_dir:tools'
    open #2 : name 'last_inv.dat', access output
    print "  Tools 'Last Inventory Data Format' Check for 1996 Inventory"
    print "Tool No      ", " Model No      ", " LAST_INV ", "LAST INV "
    print "=====      ", " =====      ", " =====      ", " ====="
    print "Extract Data:"
    print #2: "ToolNo      ", " Model No      ", " LAST_INV      ", "LAST_INV"
    print #2: "=====      ", " =====      ", " =====      ", " ====="
    print #2: "Extract Data"

20  extract structure tools
    yy$ = lpad$ (element$ (tools (last_inv),3,"/"), 2, "0")
    mm$ = lpad$ (element$ (tools (last_inv),1,"/"), 2, "0")
    dd$ = lpad$ (element$ (tools (last_inv),2,"/"), 2, "0")
    cc$= yy$ + "/" + mm$ + dd$
    c1$ = change$ (cc$, '/', '')
    if c1$[1:2], '50' then
        c$ = '20' + c1$
    else
        c$ = '19' + c1$
    end if
    include c$, '19960101'
    sort by tools(model)
    sort by rpad$(c$,8, '0')
    if c$[1:8], '19960101' then
        print tools(toolno) ; tab (23); tools(model); &
            tab(35); toos(last_inv); tab(44); c$
        print #2: tools(toolno) ; tab (23); tools(model); &
            tab(35); toos(last_inv); tab(44); c$
        if valid ( c1$, "digits") = 0 then
            print; tab(53); " Date format is not digits"
            print #2: ;tab(53); " Date format is not digits"
        end if
        if valid ( c1$, "minlength 6") = 0 then
            print; tab(50); " Date format is short"
            print #2: ;tab(50); " Date format is short"
        end if

```

```

        if tools(last_inv) = "" then
            print; tab(53); " Date format is blank"
            print #2: ;tab(53); " Date format is blank"
            end if
!
30    end extract
        print
        print "Sorted Data:"
        print
40    for each tools
        c1$ + change$ (tools(last_inv), '/', '')
        print tools(toolno); tab (23); tools(model); &
        tab (35); tools(last_inv); tab(44); c$
            if valid ( c1$, "digits" ) = 0 then
                print; tab(53); " Date format is not digits"
                print #2: ;tab(53); " Date format is not digits"
                end if
!
            if valid ( c1$, "minlength 6" ) = 0 then
                print; tab(53); " Date format is short"
                print #2: ;tab(53); " Date format is short"
                end if
!
!
!
!

```

2024-10-26 14:26:26

**Appendix 4**  
**Response to Office action Dated July 22, 2002**  
**in Merged Proceedings**  
**09/512,592, 90/005, 592, 90,005,628 and 90/005,727**

09/512,592, 90/005, 592, 90,005,628 and 90/005,727





Case Docket No. 11151

Sir:  
Transmitted herewith for filing is the patent application of  
Inventor: Bruce Dickens

Enclosed are: 1 sheets of drawing.  
An assignment of the invention to McDonnell Douglas Corporation

- ☐ A certified copy of a \_\_\_\_\_ application.  
☐ An associate power of attorney. \_\_\_\_\_ application.  
☐ A verified statement to establish small entity status under 37 CFR 1.9 and 37 CFR 1.27.  
☒ Exhibit A

The filing fee has been calculated as shown below:

		(Col. 1)	(Col. 2)
FOR:	NO. FILED	NO. EXTRA	
BASIC FEE			
TOTAL CLAIMS	15-20 =	• 0	
INDEP CLAIMS	2-3 =	• 0	
<input type="checkbox"/> MULTIPLE DEPENDENT CLAIM PRESENTED			

\* If the difference in Col. 1 is less than zero, enter "0" in Col. 2

SMALL ENTITY		OR	OTHER THAN A SMALL ENTITY	
RATE	FEE		RATE	FEE
	\$ 170	<u>OR</u>		\$ <del>250</del> 770
X 6 =	\$	<u>OR</u>	X12 =	\$
X17 =	\$	<u>OR</u>	X34 =	\$
+55 =	\$	<u>OR</u>	+110 =	\$
Assign. \$		<u>OR</u>	Assign. \$	40
TOTAL			TOTAL	810

- ☐ Please charge my Deposit Account No. \_\_\_\_\_ the amount of \$ \_\_\_\_\_. A duplicate copy of this sheet is enclosed.
- ☒ A check in the amount of \$ 810 to cover the filing fee is enclosed.
- ☒ The Commissioner is hereby authorized to charge payment of the following fees associated with this communication or credit any overpayment to Deposit Account No. 07-0143. A duplicate copy of this sheet is enclosed.
- ☒ Any additional filing fees required under 37 CFR 1.16.
- ☒ Any patent application processing fees under 37 CFR 1.17.
- ☒ The Commissioner is hereby authorized to charge payment of the following fees during the pendency of this application or credit any overpayment to Deposit Account No. 07-0143. A duplicate copy of this sheet is enclosed.
- ☒ Any patent application processing fees under 37 CFR 1.17.
- ☐ The issue fee set in 37 CFR 1.18 at or before mailing of the Notice of Allowance, pursuant to 37 CFR 1.311 (b).
- ☐ Any filing fees under 37 CFR 1.16 for presentation of extra claims.
- ☒ Any deficiencies in fees in this application.

Gregory Garmong  
P.O. Box 12460  
Zephyr Cove, NV 89448

Respectfully submitted,

Gregory Garmon, Reg. No. 29,382

-- Century Conversion --

Bruce Dickens Apr 04, 1996

```
10 open structure tools:name 'otms_src_dir:tools'
open #2 : name 'last_inv.dat', access output
print " Tools Last Inventory Data Format' Check for 1996 Inventory"
print "ToolNo "; " Model No "; " LAST_INV "; "LAST_INV "
print "===== "; " ===== "; " ===== "; "===== "
print "Extract Data:"
print #2: "ToolNo "; " Model No "; " LAST_INV "; "LAST_I
NV "
print #2: "===== "; " ===== "; " ===== "; "=====
== "
print #2: "Extract Data:"

20 extract structure tools
yy$ = lpad$(element$(tools(last_inv),3,"/"), 2, "0" )
mm$ = lpad$(element$(tools(last_inv),1,"/"), 2, "0" )
dd$ = lpad$(element$(tools(last_inv),2,"/"), 2, "0" )
cc$= yy$ + "/" + mm$ + "/" + dd$
cl$ = change$(cc$,'/',',')
if cl$[1:2] < '50' then
c$ = '20' + cl$
else
c$= '19' + cl$
end if
include c$ < '19960101'
sort by tools(model)
sort by rpad$(c$,8, '0')
if c$[1:8] < '19960101' then
print tools(toolno); tab(23); tools(model); &
tab(35);tools(last_inv); tab(44); c$
print #2: tools(toolno); tab(23); tools(model); &
tab(35);tools(last_inv); tab(44); c$
if valid ( cl$, "digits" )= 0 then
print ;tab(53); " Date format is not digits"
print #2: ;tab(53); " Date format is not digits"
end if
if valid ( cl$, "minlength 6" ) = 0 then
print ;tab(50); " Date format is short"
print #2: ;tab(50); " Date format is short"
end if
if tools(last_inv) = "" then
print ;tab(53); " Date format is blank "
print #2: ;tab(53); " Date format is blank "
end if
end if
30 end extract
print
print "Sorted Data:"
print
40 for each tools
cl$ = change$(tools(last_inv),'/',',')
print tools(toolno); tab(23); tools(model); &
tab(35); tools(last_inv); tab(44); c$
print #2: tools(toolno); tab(23); tools(model); &
tab(35); tools(last_inv); tab(44); c$
if valid ( cl$, "digits" ) = 0 then
print ;tab(53); " Date format is not digits"
print #2: ;tab(53); " Date format is not digits"
end if
if valid ( cl$, "minlength 6" ) = 0 then
print ;tab(53); " Date format is short"
print #2: ;tab(53); " Date format is short"
end if
```

Exhibit A

**Appendix 5**  
**Response to Office action Dated June 20, 2002**  
**in Merged Proceedings**  
**09/512,592, 90/005, 592, 90,005,628 and 90/005,727**

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C2 10. (Amended) The method of claim 9, including the additional step, after the step of reformatting, of manipulating information in the database utilizing the reformatted date information.

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**Appendix 6**  
**Response to Office action Dated June 20, 2002**  
**in Merged Proceedings**  
**09/512,592, 90/005, 592, 90,005,628 and 90/005,727**

10. (Amended) The method of claim 9, including the additional step, after the step of reformatting, of manipulating information in the database utilizing having the reformatted date information therein.